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Recommended Sphere of Influence For the City of San Ramon

A Report Prepared For The
City of San Ramon

By
Angus McDonald & Associates
in Association With
Blayney-Dyett
DKS Associates
The Land Economics Group

Berkeley, California
May 1984

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The conclusions and recommendations in the report are those of the consultant staff and do not necessarily reflect the policy of any other agency contacted during the study.

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ABBREVIATIONS USED IN THIS REPORT

ABAG	Association of Bay Area Governments
ADT	Average Daily Trips (two-way)
API	Area of Planning Interest
BART	Bay Area Rapid Transit District
CCCSD	Central Contra Costa Sanitary District
CCCTA	Central Contra Costa Transit Authority
DEIR	Draft Environmental Impact Report
DSA	Detailed Study Area
DSRSD	Dublin San Ramon Services District
DU	Dwelling Unit
EBMUD	East Bay Municipal Utility District
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
GPA	General Plan Amendment
LAFCo	Local Agency Formation Commission
LAVWMA	Livermore/Amador Valley Water Management Agency
LOS	Level of Service
MF	Multi-family
MTC	Metropolitan Transportation Commission
SF	Single-family
SP	Southern Pacific Railroad
SRVFPD	San Ramon Valley Fire Protection District
SRVUSD	San Ramon Valley Unified School District
TZ (or TAZ)	Traffic Analysis Zone



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I. INTRODUCTION AND SUMMARY

A. The Assignment

The City of San Ramon, shown on Figure I-1, was incorporated in July of 1983 as Contra Costa County's seventeenth City. Land use considerations had been a major issue when the City of San Ramon was formed, and were also a major factor when the adjoining cities of Danville and Dublin were incorporated in 1982.

The San Ramon City Council recognized that land use issues and the resulting issues of providing public services in the area would be important determinants of San Ramon's future. The City Council began immediately to adopt land use and public service policies that would be consistent with the philosophy that originally led to incorporation.

The City Council recognized that it should begin with the question of its ultimate boundaries and the ultimate boundaries of its neighboring cities and special districts that have traditionally provided services in the San Ramon Valley. A logical and effective process for considering ultimate City boundaries was the Sphere of Influence process wherein a determination must be made of the ultimate boundaries of each local government in California. The Sphere of Influence is used as a plan for public services and as a device for determining which local government should be responsible for public services.

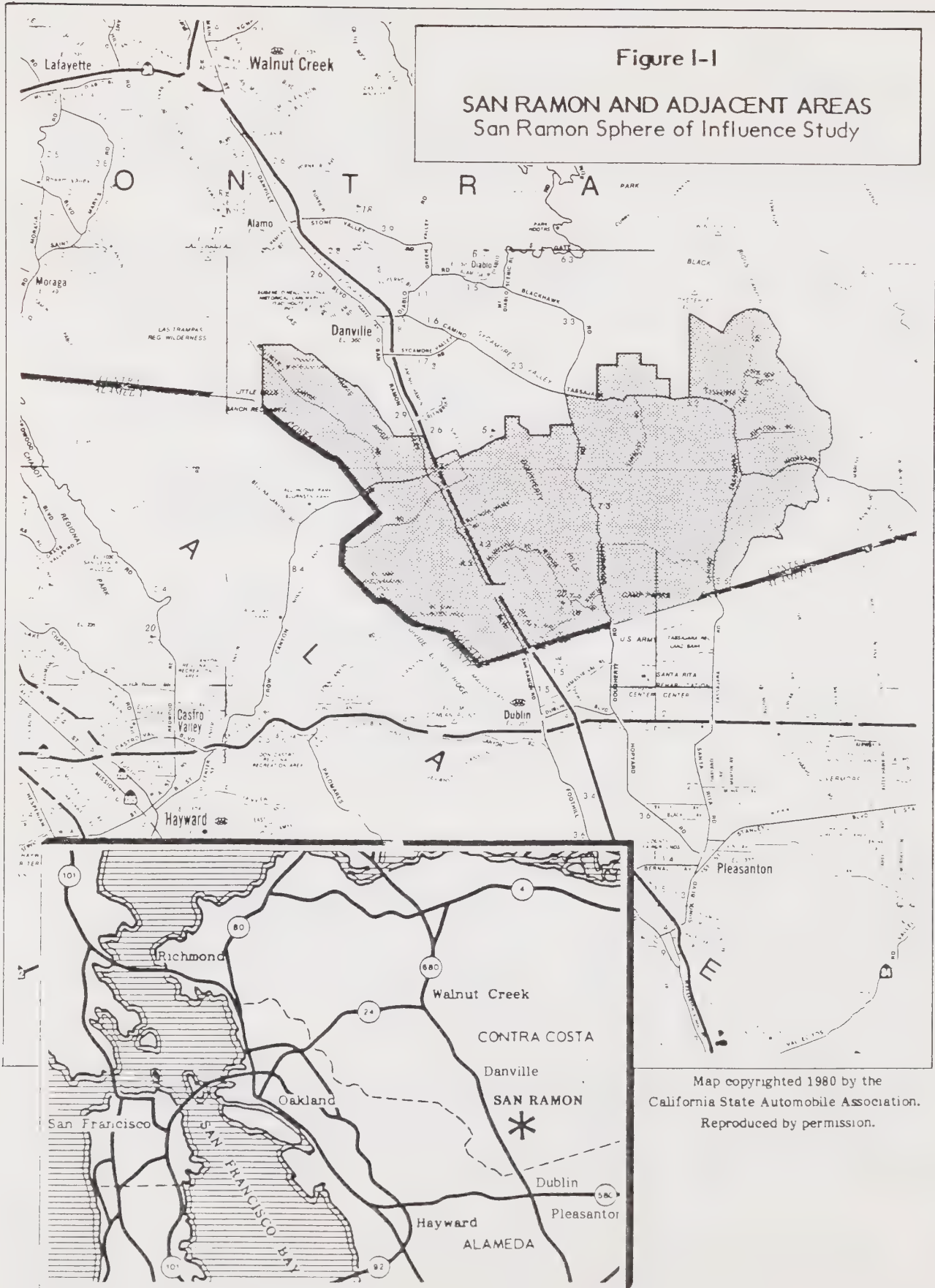
Government Code Section 54774 specifies that "...sphere of influence 'means a plan for the probable ultimate physical boundaries and service area of a local government agency.' " Spheres of Influence are adopted by the Contra Costa Local Agency Formation Commission (LAFCo). The Contra Costa LAFCo has been particularly conscious that although a Sphere of Influence is a plan for public services, the basic determinant of the demand for public services is the land uses that will ultimately occur within a local government boundary. Accordingly a definition of a public services boundary must begin with an analysis of the land uses that will produce the demand for public services.

The San Ramon City Council strongly supported LAFCo policies on public services planning that was based on explicit assumptions and policies about land use. The City Council commissioned a Sphere of Influence study that would make a recommendation for San Ramon's ultimate boundaries. These recommendations were to be based on assumptions about land use and the efficient delivery of public services to support assumed land use. Adequate attention was to be given to the role of existing public service providers. Recommendations were to focus on ultimate responsibilities, without overlooking the fact that a transition to the ultimate boundaries might take many years to accomplish.

The designation of a Sphere of Influence for San Ramon will ultimately be made by the Contra Costa LAFCo. The present report constitutes a recommendation for that Sphere by the City of San Ramon. It describes a Sphere of Influence that would be consistent with and supportive of LAFCo policies, assuming the land use and public services policies that reflect the present intentions of the City of San Ramon.

Figure I-1

SAN RAMON AND ADJACENT AREAS
San Ramon Sphere of Influence Study



Map copyrighted 1980 by the
California State Automobile Association.
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The process of producing a recommended Sphere was guided by State statutes and LAFCo criteria and guidelines. A number of steps were involved, including:

- A survey of land use constraints and opportunities within San Ramon's Area of Planning Interest. This included interviews with each City Council member to reveal aspirations for San Ramon, thoughts on major planning issues, and expectations on the Sphere study.
- Definition of a Detailed Study Area, which established the maximum area within which San Ramon's Sphere would ultimately be defined.
- A public workshop to receive citizen input on development opportunities and constraints within the Detailed Study Area.
- Formulation and citizen review (at a second public workshop) of four alternative Sphere of Influence boundaries. Participation of other affected local governments was sought out and encouraged.
- Further comparison of land use, environmental, fiscal, public service, and transportation issues associated with the Sphere alternatives.
- Consultant recommendation of a proposed Sphere of Influence based on that comparison.
- City Council and public review of the recommended Sphere, the final step before submittal of the proposed Sphere boundary to LAFCo.

The present report describes both the comparison of alternative Sphere of Influence boundaries and the recommended Sphere of Influence. The main body of the report concentrates on a description of the recommended Sphere of Influence. A detailed analysis of the four alternatives that were considered and a comparison of these alternatives is presented in the Appendix.

The exhibits included in this report are for general analysis only. Detailed display maps depicting environmental, land use, traffic, and public service information are available at City of San Ramon offices and are described in Appendix D.

B. The Recommendation

I. The City's Sphere of Influence

The consultants' recommended Sphere of Influence for the City of San Ramon is shown in Figure I-2. This Sphere boundary was identified as "Alternative B" during the analysis of alternative boundaries. At ultimate buildout, Sphere B could accommodate approximately 39,000 additional San Ramon residents, or a total City population of around 64,000 people.

The rationale for a recommended Sphere boundary that is larger than the present City limits relies heavily on the public service requirements of land uses proposed for areas outside the City. Many of these areas are undergoing development, or are planned for urban development in the short term. Additional areas more distant from present City boundaries are slated for development in the longer term.

There is existing development under way within portions of Sphere Boundary A, and pressure to urbanize other portions. The land uses being developed or proposed for these areas will require the kinds of municipal services traditionally provided by an incorporated City. The City of San Ramon, because of proximity and ability to provide these services, would be the logical public service provider for all of Sphere Boundary A. At buildout, areas within Sphere A will be virtually indistinguishable from the present City. Government Code Section 54774(g), which is one of the criteria to consider in assessing a proposed Sphere of Influence, specifies that:

"...social and economic interdependence and interaction between the area within the boundaries of a local government agency..."

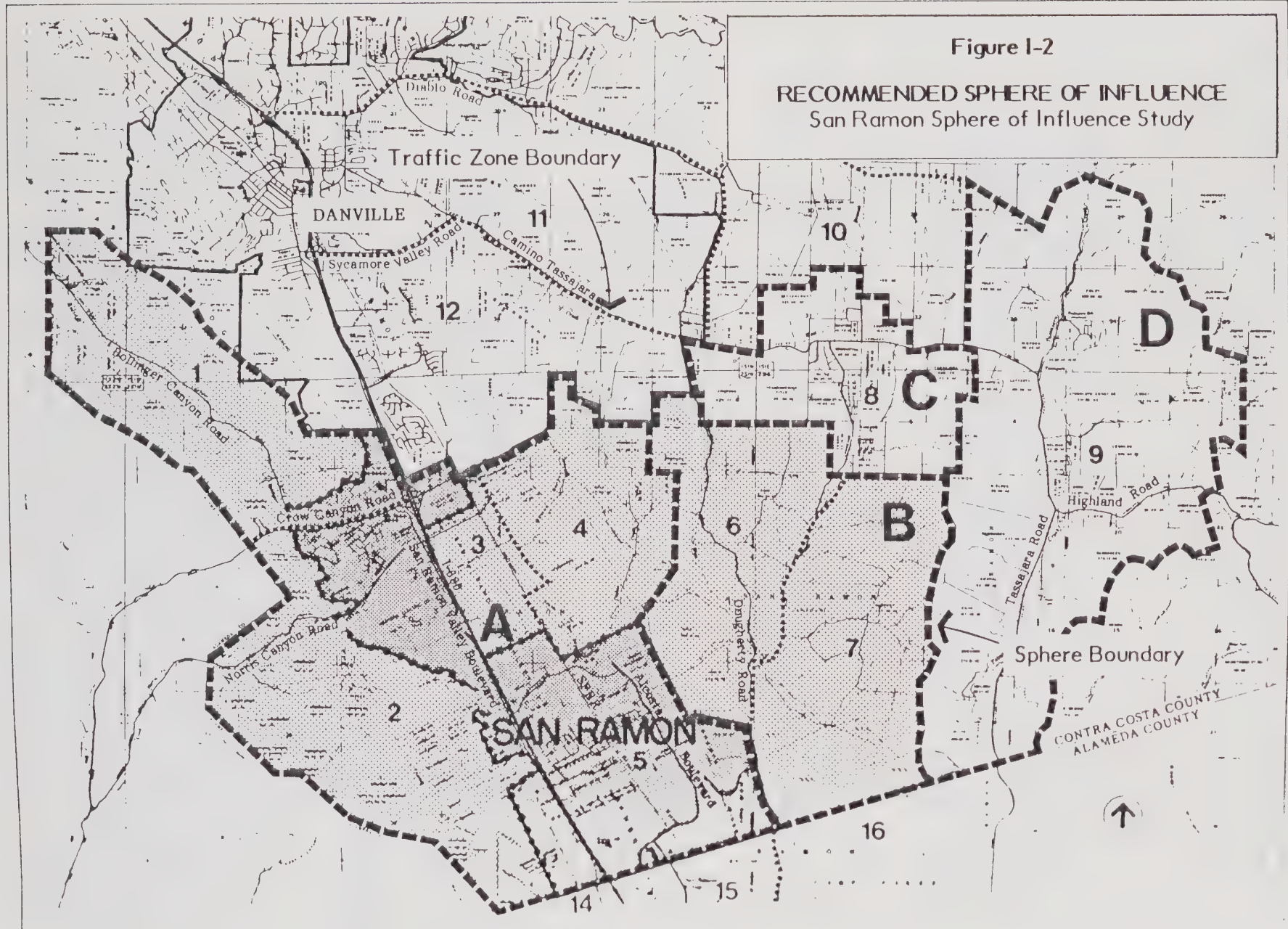
should be a factor in Sphere determination. Adoption of Sphere A would certainly meet that criterion.

The recommended Sphere of Influence -- Sphere Alternative B -- is recommended for all the reasons justifying inclusion of lands within Sphere A. Sphere B would encompass all of the land suitable for urban development that falls within the traffic shed of I-680 in San Ramon. Residents of this Sphere would naturally shop in San Ramon, many would work there, and all would readily identify themselves as San Ramon residents. It would be fiscally feasible for the City of San Ramon to provide municipal services to the recommended Sphere of Influence, as City growth would involve logical, incremental annexation outward into Sphere B. The ultimate land uses in Sphere B, or the combination of Sphere A plus Sphere B, would mean a balanced City of San Ramon. This ultimate City would have a balance of residential and non-residential land uses, including a residential community with a mix of housing types.

Once the potential for urban development in Sphere B is accepted, with the implied necessity for municipal-type services, the remaining question concerns the local agency (or agencies) that can most efficiently provide these services. The conclusion that San Ramon could most efficiently serve the area was based primarily on an analysis of travel demand and the required road network. San Ramon and/or the existing special districts can efficiently provide the full range of municipal services, but the unique capacity of San Ramon is to unify the entire area because of the pattern of travel that would exist after urbanization.

Figure I-2

RECOMMENDED SPHERE OF INFLUENCE
San Ramon Sphere of Influence Study



Recommending Alternative B as the proposed Sphere of Influence does not constitute an endorsement of any land use proposal that has been made for Sphere B, nor does it imply a commitment to extensive development in the area east of the Dougherty Hills. Adoption of the recommended Sphere of Influence implies that if the normal planning and development review process suggests that the area should develop, then public services can most efficiently be provided by San Ramon.

Sphere Alternatives C and D are not part of the recommended Sphere of Influence. Sphere C is viewed ultimately as one of two things. First, it could function as a buffer, or urban separator, between San Ramon, Danville, and unincorporated Contra Costa County. One of the principal land uses in Sphere C would be ranchettes, which may not require urban-level public services. Sphere D is projected to develop at density levels outside those requiring urban services. There is no justification for inclusion of Sphere D (and portions of Sphere C) on identity grounds, as residents of this area may not view themselves as part of any incorporated City.

Two assumptions are inherent in the recommended Sphere of Influence. First, annexation to the City of San Ramon and extension of services will proceed logically outward from the City boundaries in increments. These increments should be small enough to assure effective extension of public service delivery capability without massive investment, but large enough to assure an overall fiscal balance and optimum mix of residential and other land uses.

Second, orderly development of the recommended Sphere will depend upon the formulation of a joint City of San Ramon/Contra Costa County development review procedure. This joint City/County procedure would allow for early and critical City of San Ramon input on proposed developments within the recommended Sphere. In the absence of such a joint review procedure, projects may be approved with land uses that would be inconsistent with an ultimately balanced mix of land uses for San Ramon.

The recommendation for a Sphere of Influence responds directly to the mandate of State law. It is an assumption about the ultimate boundary for the extension of municipal services by San Ramon, rather than a statement about when development will occur within the ultimate boundary. Actual extension of public services would follow City policy, as discussed previously.

The problems associated with an alternative approach -- to define "ultimate" boundaries in terms of rather short term increments such as the next ten years of growth -- is discussed in the Appendix.

2. The Role of Other Local Agencies

In addition to local government services provided by the City of San Ramon (discussed below), other local agencies would continue to provide services within the proposed Sphere boundary. Contra Costa County could continue to provide police protection and road maintenance services within San Ramon's City limits on a contractual basis, and would also provide health and human services to San Ramon residents. Water service throughout the Sphere would be provided by the East Bay Municipal Utility District (EBMUD). In most areas, service provisions would require the enlargement of EBMUD's Sphere and annexation to the District's service area. Due to gravity flow requirements, some of the northernmost portions of Sphere B would be included in an enlarged Central Contra Costa Sanitary District

(CCCSD) Sphere of Influence, with District annexation preceding service provision. Other areas not served by CCCSD would become logical additions to the Dublin San Ramon Service District's (DSRSD) service area. In virtually all cases, this would involve enlargement of DSRSD's Sphere of Influence and service area.

This report, in Section III, confirms that fire protection could be provided efficiently and within the tax base of the recommended Sphere. A number of important issues must be resolved prior to determination of which of the existing fire protection providers -- the San Ramon Valley Fire Protection District or DSRSD -- would be the logical service provider in areas presently outside urban-level fire protection district boundaries. The City of San Ramon represents an additional potential alternative for fire protection services. In any case, Spheres of Influence and service areas would need to be enlarged prior to the provision of urban-level fire protection services. Fire protection issues should be the focus of a separate analysis and a work program to deal with these issues is provided in the Appendix. The Appendix also provides a detailed discussion of public service capacity issues.

II. THE DEMAND FOR PUBLIC SERVICES

A. Land Use Alternatives Within Alternative Potential Spheres of Influence

The City of San Ramon includes 7.2 square miles between the Alameda County line and the City of Danville boundary north of Crow Canyon Road. Within this segment of the two-mile wide San Ramon Valley, the City includes all existing urban development except the Bishop Ranch Business Park and adjoining recently built residential areas to the north and east. Between San Ramon and the Alameda County boundary on the first high ridge to the west there is little buildable land and most parcels are under Williamson Act agricultural preserve contract. The Tassajara area extending five miles to the east of San Ramon is unique among remaining undeveloped portions of Contra Costa and Alameda counties that are close to employment areas. Although much of the land is steep, there are also gently rolling hills and small, flat valleys. Further east are steeper, higher ridges that preclude urban development. Most of this area is highly productive grazing land under Williamson Act contract.

The primary factor in determining a logical Sphere of Influence for San Ramon is the ultimate potential demand for urban public services. Thus, since land use is a primary determinant of demand for public services, a decision on a Sphere boundary must be based on a study of the probable extent of urban development. Unlike a General Plan which prescribes desired future development within relatively narrow limits, the land use studies for the Sphere study ask only four questions:

- What is likely to be urbanized over the next 20 years or longer?
- What are the reasonable upper limits of development intensity that could be provided with urban public services?
- Is development likely to occur at an intensity that will create a demand for urban services?
- Which local government entity would most appropriately provide services?

Because a Sphere is a "probable ultimate boundary" it must, in some instances, look beyond the time frame of a General Plan. An area designated as open space on the General Plan may be included within a Sphere whether or not it is expected to remain permanently open. There is no need to amend or adopt a General Plan to designate the land uses or public service systems assumed by the Sphere study. Even in portions of the recommended Sphere where the City's General Plan will designate urban development, the proposed pattern is likely to correspond only roughly to the Sphere study assumptions.

The success of the Bishop Ranch Business Park and the existence of large acreages to the east, now experiencing development interest, create strong pressure for urbanization. In similar situations throughout California, development pressures have prevailed in the long term despite efforts to preserve agricultural land. A conclusion that some of this area is appropriately within San Ramon's Sphere is a recognition of this fact and an allowance for future land use decisions. It can be reached independently of a decision as to which portions should be urbanized and when.

The method used to develop land use assumptions was as follows:

- A maximum area to be considered for possible inclusion within a proposed Sphere was defined (referred to as the Detailed Study Area)
- Four trial Sphere boundaries were drawn after review of existing boundaries and Spheres of public service providers, existing development, environmental and other topographic constraints, and current plans and trends (see Figure 1-2).
- It became apparent during the Sphere study that feasible future traffic service capacity would set the upper limit on development, and the four trial Spheres were divided into nine traffic zones (TZs) for analysis and the maximum allowable daily vehicle trips to and from each zone or group of zones was calculated.
- Each traffic zone was then assigned a "high" and a "low" development potential (i.e., an assumed density) based on existing development, topography, accessibility, and plans approved or judged likely to be approved. Lands east of the Dougherty Hills (TZs 6, 7, 8, and 9) were assumed to remain open or to be developed only for residential use, with commercial development limited to neighborhood shopping centers.

The maximum feasible trafficways system would not accommodate the initial range of assumptions, so the assumptions were reduced to hold traffic within the projected maximum capacity of the access routes. (Appendix C provides a detailed discussion of this issue).

Within the present City of San Ramon, assumed additional residential and commercial development was based on data prepared by the Contra Costa County Planning Department. Between the present City and the Alameda County boundary to the west, development assumptions were based on land slope, except that no significant additions were assumed in Bollinger Canyon.

Future employment, totalling 50,000 jobs, was projected from land use allocations and includes 25,000 jobs at the Bishop Ranch Business Park.

The land use assumptions indicate a potential population of 65,000 within the recommended Sphere (Sphere B) and 71,000 within the detailed study area (Sphere D). The current population of San Ramon is about 25,000.

Detailed data are provided in Appendix Sections C.2 and C.3.

B. Transportation Services

As an input to the recommendation for a Sphere of Influence, an analysis of potential future travel demand and transportation system requirements was undertaken. Details on the process are given in the Appendix. Briefly, alternative land use scenarios were formulated reflecting current development proposals and ranges of density. For each of these land use alternatives, alternative circulation systems were specified. Future traffic volumes at build-out were projected for each alternative circulation system, and then compared to roadway capacities. Results of this analysis were used to develop a revised land use scenario and circulation system that reasonably balances travel demands and roadway capacities within the recommended Sphere of Influence.

An early finding of the Sphere of Influence Study is that the area's overall transportation system of freeways and arterials is quite limited. Although some widenings to existing facilities are possible (and appear necessary in the future), there are few opportunities for entirely new routes to be constructed to accommodate all of the potential development that has been proposed or contemplated. Hence, the transportation analysis has been a key factor in determining the assumed land use densities described in Section II-A. The other important premise related to transportation is that development areas that gain access primarily from San Ramon roadways are logical candidates for inclusion in the recommended Sphere of Influence; areas not dependent on City roadways are not candidates for inclusion unless provision by the City of other public services is involved.

Below is a description of the resulting projections of travel demand and transportation system requirements. It is stressed that the circulation system is not a recommended plan, but rather a reasonable way to meet ultimate travel needs at the assumed development intensities. Further work will be needed in the future to refine the travel forecasts as well as to consider alternative circulation improvements. This is most appropriately accomplished within the context of a General Plan Study once a Sphere of Influence has been adopted.

I. Potential Travel Demand

Potential future travel demands were estimated within the entire Area of Planning Interest. Within the area encompassing the alternative Spheres of Influence, travel demands were estimated as a function of assumed build-out development levels described in Section II-A. (As noted above, these levels were derived by balancing resulting demands against potential transportation system capacity.) Outside the Spheres of Influence, long-range future development levels projected by others were utilized. A four-step process was followed:

- Trip Generation. Trip generation rates were applied to assumed employment levels and housing units within each travel analysis zone to estimate the total number of daily vehicle trips generated to/from each zone at build-out.
- Trip Distribution. Existing regional travel patterns reported by the Metropolitan Transportation Commission were adjusted and refined to distribute future generated vehicle trips between zones.
- Trip Assignment. The zone-to-zone vehicle trips were assigned to shortest travel paths between zones, resulting in traffic forecasts on specific arterial streets.

- Screenline Analysis. Projected traffic volumes were aggregated across key north-south and east-west screenlines. These were then used to scale lane requirements for the arterial system. (The reason for aggregation to screenlines, rather than comparison of volumes and capacities for individual arterials, is that the traffic forecasting process was not sufficiently fine-grained or calibrated to provide reliable projections by facility.)

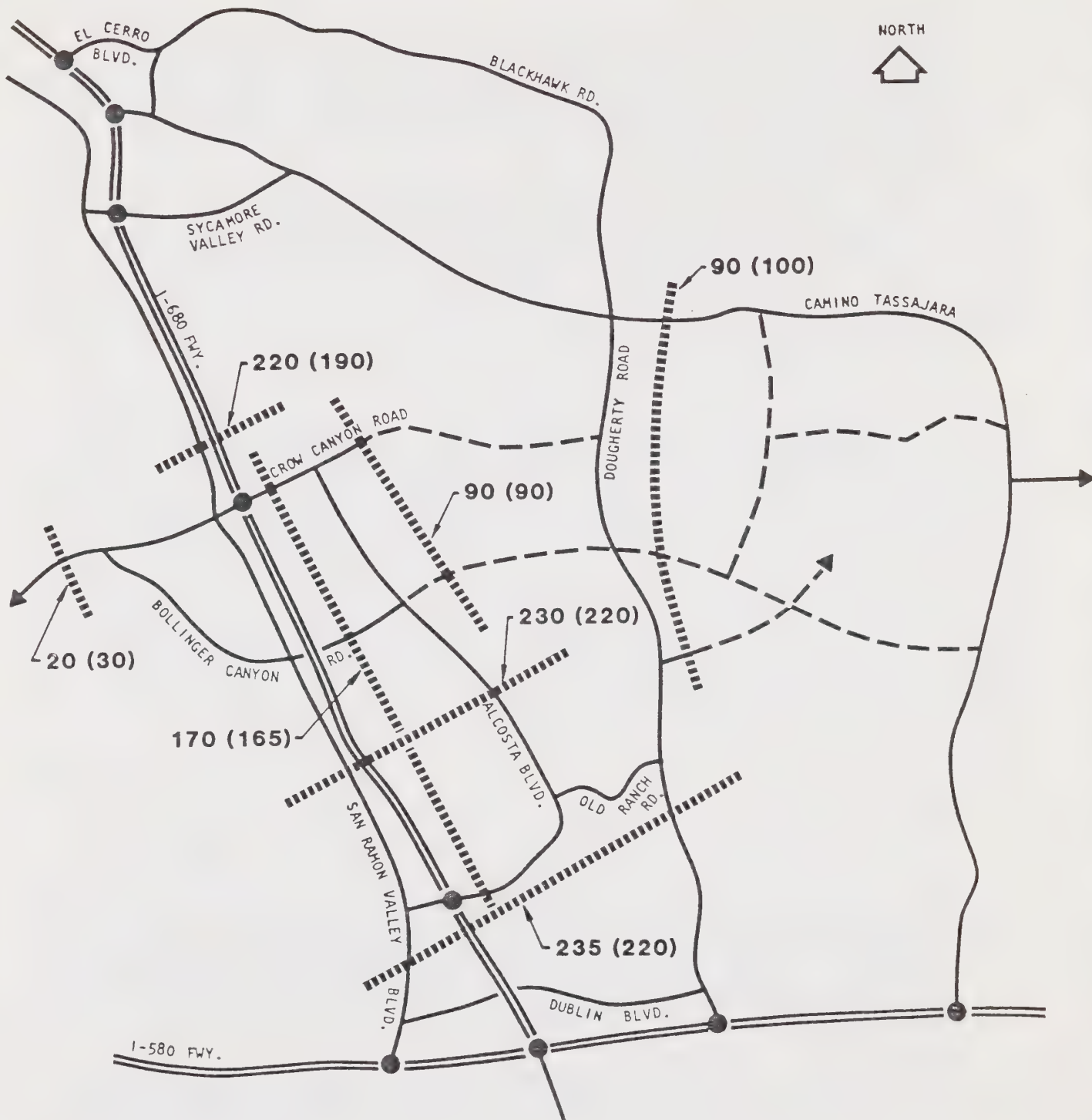
Results of the screenline travel demand analysis are given in Figure II-1. Projected daily traffic volumes are for the assumed land use intensities at build-out. The corresponding capacities are for the assumed circulation system described in the next section, and represent Level of Service "D" conditions during peak periods. As noted above, the projected travel demands and system capacities have been balanced to provide Level of Service "D" or better conditions across critical screenlines at build-out.

2. Transportation System Requirements

Figure II-2 shows a system of arterial streets to meet the projected travel demands at build-out within the Sphere of Influence. Included are indications of existing and required future number of through-lanes on the arterial system. (Additional lanes for turn movements may be needed at major intersections). The network most closely resembles Transportation Alternative B/C/D described in the Appendix. The key difference is that a new I-680 Freeway interchange between Bollinger Canyon Road and Alcosta Boulevard incorporated into Transportation Alternative B/C/D is omitted in the current version; this is based on comments received at the public workshop, as well as on consideration of potential costs and disruption of developing an entirely new east-west route through San Ramon. Omission of the new east-west route required scaling down of assumed land use densities to the east of San Ramon in order to maintain a balance between travel demand and system capacity.

Major features of the assumed circulation network include the following:

- New interchange at I-680/Bollinger Canyon Road as currently programmed (bids to be received next month); improvements to Crow Canyon Road interchange (to be bid next year); widening of Norris Canyon Road overpass (to be bid next year).
- Extension of Bollinger Canyon Road to the east to serve the proposed Gumpert Ranch development area. In the absence of this route, Crow Canyon Road and Camino Tassajara are projected to be heavily overloaded, even with widening of these routes. Bollinger Canyon Road would be a 6-lane facility as far east as the Canyon Lakes development, and 4 or 6-lanes beyond that. Continuity to Camino Tassajara to the east is desirable but not necessary.
- Easterly extension of Crow Canyon Road to Camino Tassajara. To preserve capacity on Crow Canyon Road for locally generated traffic, it may be desirable to limit its width to 2-4 lanes east of Dougherty Road and to downplay its connection with Camino Tassajara. It is also assumed that Crow Canyon Road would be aligned so as to attract a portion of the Gumpert Ranch area traffic should overloads occur on Bollinger Canyon Road.
- Widening to 4 lanes and upgrading to urban standards of Dougherty Road and the north-south portion of Camino Tassajara.



Example

200 (220)

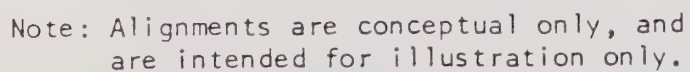
— Total Capacity (000's)

— Total Demand (000's)

Figure II-1

COMPARISON OF DAILY TRAVEL DEMANDS AND CAPACITIES FOR SELECTED SCREENLINES
SAN RAMON SPHERE OF INFLUENCE STUDY

Source: DKS Associates



Source: DKS Associates

- Widening of the east-west portion of Alcosta Boulevard to six lanes and upgrading of the I-680/Alcosta Boulevard freeway interchange to off-load Bollinger Canyon Road and Crow Canyon Road.
- Widening of Old Ranch Road to 4 lanes may be desirable. An alternative is to construct a new route from Alcosta Boulevard near Old Ranch Road to Dougherty Road and extend this into the Gumpert Ranch area; however, this may not be feasible due to existing development and terrain.
- To bring more traffic down to Alcosta Boulevard/I-680 from the north, while avoiding traffic intrusion on the north-south portion of Alcosta Boulevard, an alternative would be to construct a new roadway within the existing SP right-of-way. (This is not presumed in the plan shown.)
- Various improvements outside San Ramon's sphere of influence and/or of regional importance are assumed in the plan. Key to these is widening of I-680 to a full 8-lane freeway, plus auxiliary lanes where possible. Also, an additional I-680 interchange within Dublin (as proposed by others) would help preserve capacity on Alcosta Boulevard for San Ramon traffic growth. Other important improvements assumed in the plan are widening of Camino Tassajara to six lanes from the Edmonston Ranch area west into Danville, and upgrading of the Sycamore Valley Road, Diablo Road and/or El Cerro Boulevard freeway interchanges to handle the increased traffic levels. Of these, only the Sycamore Valley Road interchange is presently programmed for near-term improvements.

These system requirements are based on screenline comparisons of travel demands and capacities within the Area of Planning Interest and particularly focused on the Sphere of Influence area. Earlier analysis indicated that east-west capacity is the limiting factor. A critical screenline for east-west movements is east of Alcosta Boulevard. The overall screenline would operate at LOS "D" during peak periods. This is generally considered the limit of acceptable level of congestion in urban areas, but is a degradation from current service levels, and also depends upon some diversion of traffic among parallel routes in order to balance traffic loadings across the screenline. Diversion of some traffic to high quality transit services in the SP right-of-way would not reduce traffic from this screenline since traffic from the east would still have to cross the screenline to access the transit system. Nor would a more direct route from the east to Alcosta Boulevard necessarily off-load Bollinger Canyon Road or Crow Canyon Road since Alcosta Boulevard is so far south. (Traffic oriented to the south is already assumed to use primarily Dougherty Road or Camino Tassajara). Hence, should additional development beyond assumed levels occur east of Alcosta Boulevard, a new east-west route to I-680 (as had been shown in preliminary Transportation Alternative B/C/D) may need to be developed and/or a high-quality, high-capacity east-west transit trunk line provided in addition to the roadway widenings assumed in the plan. Neither of these are likely to occur within the foreseeable future.

Moreover further widening of Crow Canyon Road or Bollinger Canyon Road beyond the assumed widths is not desirable; this would simply overload these streets east of I-680, another critical screenline for east-west movements. Across the I-680 screenline the combined capacity of Crow Canyon Road, Bollinger Canyon Road and Alcosta Boulevard is projected to be just sufficient to accommodate the assumed land use intensities, even with the additional widening near I-680 (9-10 lanes including thru lanes and turn lanes), as

assumed. Substantial queuing and traffic delays are nevertheless likely near I-680 due to the heavy turn movements involved. Unlike the Alcosta Boulevard screenline, east-west traffic volumes at the I-680 screenline could potentially be reduced by providing major new transit service in the SP right-of-way.

C. Demand for Municipal Services

With the exception of the demand for transportation services described immediately above, the assumed land use policies in the recommended Sphere of Influence do not lead to unusual problems of public services delivery. It was assumed that the types and levels of public services now generally available in San Ramon and Danville (and Dublin in Alameda County) would be available throughout the recommended Sphere of Influence. (This "base case" or "status quo" assumption about level of municipal services was also used when the alternative Spheres of Influence were compared).

The basic assumptions about demand for public services and response to that demand are summarized in Table II-4.

Table II-4

ASSUMPTIONS ABOUT DEMAND FOR MUNICIPAL SERVICES
San Ramon Sphere of Influence Study

Public Service	Description of Service
General Government	Normal administrative, financial control, and legal services
Planning	Comprehensive and specific planning that is totally responsive to State mandates and City Council policy
Police Protection	Level of service and response time generally comparable to that now provided by Contra Costa County Continued improvement of specialized police services and traffic control
Fire Protection	Level of service and response time generally comparable to existing services
Building Inspection & Engineering	Generally comparable to existing services
Road Maintenance	An ongoing effective preventive maintenance program that accepts only those roads that meet City standards and continuously maintains the road network at City standards
Parks & Recreation	Adequate park supply and recreation program throughout the ultimate City boundary (generally comparable to the level of service now provided by the City of Dublin and the Dublin San Ramon Services District)
Water Supply & Waste Treatment	A level of water service comparable to existing service areas. Treatment and export of liquid wastes would be available throughout the Sphere area.*

* This assumption was for purposes of fiscal analysis only. The alternative of on-site treatment and disposal could be considered based on proposed land uses and specific development proposals.

Source: McDonald & Associates, based on interviews with public service providers.

III. PUBLIC SERVICES PLAN FOR THE RECOMMENDED SPHERE

A. Public Service Policy for the Sphere Area

The comparison of alternative Spheres and the selection of a recommended Sphere was based on explicit City policy about providing public services. The recommendations for the role of each public service area was based on these explicit policies.

1. A Balanced Tax Base

The City recognizes that excessive concentration on the question "Does this individual project 'pay its own way'" has little merit. Instead the City can best meet its range of policies for a balanced community by assuring that its land use policies, considered collectively, continue to assure a strong and balanced tax base. For example, an individual residential project that meets other City objectives need not produce a strong fiscal balance (narrowly defined) provided that other development (e.g.: office, commercial and industrial) provides a compensating fiscal balance. The City intends to consider its short- and long-term development policies by focusing on logical development units rather than individual projects. Also, the City intends to maintain a balanced and strong tax base, considering residential, commercial, and industrial development simultaneously.

An extension of this policy is to consider alternative Spheres of Influence in terms of whether the collective land use assumptions in each major planning area provides a positive fiscal balance for the City.

2. Annexation Policy and Extension of Public Services

It is the City's intention to offer public services delivery within its Sphere of Influence according to policies and financial guidelines that are explicitly stated and equitably applied to all proposed developments having comparable circumstances. Although the City is prepared to provide public services anywhere within its Sphere of Influence, questions of efficiency and maintenance of a balance between public revenues and public costs can be anticipated. Annexation to the City and extension of services will proceed logically outward from the City boundaries in increments. These increments should be small enough to assure effective extension of public service delivery capability without massive investment but large enough to assure an overall fiscal balance and an optimum mix of residential and other land uses.

Proposals for annexation well beyond the City boundary could be considered, but it is unlikely that the test of efficient extension of public service and maintenance of fiscal balance could be maintained without significant initial and ongoing financial contributions by a project's applicant.

3. Cooperation With Existing Local Agencies

The City of San Ramon recognizes that policies regarding extension of public service and level of public service can be managed by a municipality without necessarily requiring that the City itself actually provide the service. It is entirely feasible to set policy but contract with another agency, once basic decisions about level of service and cost have been determined. It is also possible and desirable to encourage consolidations (whether total or in terms of functions) to control the

number of local agencies in the San Ramon Valley. Accordingly, two policies guided the City in considering alternative Spheres of Influence.

First, for purposes of analysis, it was assumed that the City would continue indefinitely to consider the purchase of contract services from other agencies (e.g.: police protection from Contra Costa County). This assumption is not equivalent to a conclusion. The present City Council and subsequent City Councils will consider the alternative of contract services as well as the alternative of direct provision of services. The Council can, from time to time, change its decision about whether services can most effectively be provided directly or on contract. For purposes of the fiscal analysis (i.e: as a method to determine a reasonable cost estimate, given assumptions about level of service), contract services have been assumed.

The second assumption was that there could be a gradual transition from the current pattern of public service delivery to one that might ultimately best meet City objectives. There is no presumption that all City policies regarding extension of public services be available immediately.

This statement is particularly applicable regarding fire protection. The present study confirmed that fire protection could be provided efficiently and effectively throughout the recommended Sphere area. Nonetheless it is recognized that there are a number of options still available for actually providing fire protection, and still meeting the basic objective of fire service that is responsive to policies and requirements adopted by the City.

B. Public Service Delivery in the Recommended Sphere

Sphere Alternative B (Figure 1-2) was recommended for a number of reasons related to public services delivery capabilities. Sphere B is an area where there is a present demand for public services or where there might be a demand for municipal services in the future, depending on subsequent land use decisions. San Ramon is the most logical and capable municipal service provider within this area.

The discussion below explains why each area within Sphere B was included in the recommended Sphere of Influence, focusing on public service delivery. Chapter III, Section C discusses the services to be provided in more detail, and Chapter III, Section D demonstrates that public services could be provided in a fiscally sound manner.

I. Public Service Delivery In Sphere B

Circulation, traffic, and roadway improvement requirements were the most significant determinants of Sphere Alternative B as the recommended Sphere of Influence for San Ramon. The combination of topography and probable ultimate land use dictate that:

- the major traffic flows will help define the "...social and economic interdependence and interaction ..." of San Ramon and "...the area which surrounds it and which could be considered within...(San Ramon's) Sphere of Influence."
- the major traffic flows will impact San Ramon, within its existing city limits.

If Sphere B was assigned to any other local agency, the unifying impacts of traffic patterns on San Ramon would exist. However, San Ramon would have no opportunity to exert any influence on development within Sphere B.

Other factors that are relevant to Sphere B and its sub-areas are discussed in the following paragraphs.

a. Bollinger Canyon

The Bollinger Canyon area (Traffic Analysis Zone 1 on Figure 1-2) is included within the recommended Sphere. Although significant urban development is not projected for this area (the present analysis projects approximately 300 additional units), the additional population will require municipal services. Primary access to this area is from San Ramon, so that the logical provision of police and other municipal services would be from San Ramon. It would be physically difficult for any other public agency to provide municipal services to this area.

b. Traffic Analysis Zone 2

This area, which is comprised of the undeveloped hills to the west of the City limits south of Crow Canyon Road, is similar in public service needs to Bollinger Canyon. Bounded by the existing City limits and Alameda County, Traffic Analysis Zone 2 is isolated from other public service providers and would be most efficiently served by San Ramon.

c. Bishop Ranch

Bishop Ranch (Traffic Analysis Zone 3 on Figure 1-2) is surrounded on three sides by the City of San Ramon, and extension of the present City limits would logically include annexation of Bishop Ranch. The City would be a capable public service provider to this non-residential area, with the City Center and police sub-station located minutes from Bishop Ranch.

d. Canyon Lakes

Traffic Analysis Zone 4, which consists primarily of the proposed Canyon Lakes development project, would be a logical addition to the City of San Ramon following annexation of Bishop Ranch. The Canyon Lakes project will require significant municipal-type services, and San Ramon could provide these services through logical, incremental service extensions.

e. Traffic Analysis Zones 6 and 7

Traffic Analysis Zones 6 and 7 (shown on Figure 1-2) include the large Gale Ranch and Gumpert Ranch holdings. Both properties are currently the subject of development interest, and urbanization is likely to occur within the "ultimate" Sphere of Influence time frame.

The Gumpert Ranch presents the opportunity for a mixed residential/agricultural use in a planned use approach to urban development (R-2, R-7)*. The mixed use concept would allow for carefully controlled urban development, but at the same time would protect and even increase the productivity of the agricultural land resource. Utilization of the mixed use approach would require municipal services, and San Ramon would be the most logical service provider. The Gumpert Ranch provides an example of why an agricultural area would be included within an urban Sphere of Influence, and also signifies that a Sphere line is not necessarily a commitment to urban-level development densities.

f. Summary

The City of San Ramon could ultimately provide the full range of municipal services to all of Sphere B, through a series of logical annexations to the present City boundaries. The present City's relationship to Sphere B makes it the most efficient service provider to these areas as they urbanize.

2. Beyond the Recommended Sphere Boundary

Sphere Alternatives C and D were not included within the recommended Sphere. Some portions of Sphere C may require municipal services, but it is not clear that the City of San Ramon would be the logical service provider. The northern boundary separating Sphere B from Sphere C follows existing development, traffic flow boundaries, and logical urban separators that together form a limit to San Ramon service extension.

Sphere Alternative D was also excluded from the recommended Sphere boundary. The eastern boundary of Sphere B (see Figure 1-2) follows the Gumpert Ranch's easternmost property line. While this entire development would logically be served from San Ramon, areas to the east may not require urban services and if they did would not fall within San Ramon's traffic shed.

*Underlined numbers in parentheses refer to references, listed at the end of this report.

C. Role of Public Service Providers

The following discussion summarizes roles for the major public services as the proposed Sphere is developed. Public service assumptions are summarized on Table III-1. The Appendix contains a more detailed discussion of infrastructure requirements.

1. Municipal Services -- City of San Ramon

The City would provide a number of public services, either on a direct basis or through contractual arrangements with Contra Costa County. General government, planning, building inspection, engineering, recreation, and park maintenance services would all be provided by City staff. Police protection and road maintenance would be provided under contract by Contra Costa County. (This assumption, however, is not necessarily a conclusion. Future City Councils will determine the method of public service delivery).

The fiscal analysis in Section D of Chapter III demonstrates that all public services, including police protection and road maintenance, could be extended by San Ramon in a fiscally sound manner. Additional police personnel and services, for example, could be financed by the additional revenues that would result from new development requiring police services.

2. County Services -- Contra Costa County

The County will continue to provide health and human services to San Ramon residents. Inherent in the Sphere recommendation is the assumption that the County will not provide local government services to large urbanized areas within the proposed Sphere, and will discourage large-scale urban development outside of city boundaries. Unincorporated areas scheduled for urban development would be annexed to the City, and public service responsibilities would be transferred to the City upon annexation.

3. Sewer Service

Areas within the recommended Sphere of Influence outside of existing sewer district boundaries would be served by the Central Contra Costa Sanitary District (CCCSD) or the Dublin San Ramon Services District (DSRSD). In most cases, provision of sewer services will require the enlargement of sewer district Spheres of Influence and annexation to one of the District's service areas. Due to gravity flow requirements, some of the northernmost portions of the recommended Sphere would become logical additions to CCCSD, while the remainder would be served by DSRSD.

Development of the recommended Sphere will require significant capital improvements, including effluent transmission, treatment, and disposal expansion. This analysis assumes that existing financing mechanisms could be feasibly implemented to finance capital improvements (and annual operating costs) required to serve the recommended Sphere. Both Districts discourage the pumping of effluent and the utilization of "discrete" or "stand-alone" disposal facilities. Extension of sewer service to the recommended Sphere of Influence is assumed to be consistent with both Districts' policies if these particular issues are dealt with successfully.

Table III-1

PUBLIC SERVICE PROVIDERS WITHIN THE PROPOSED SPHERE OF INFLUENCE
San Ramon Sphere of Influence Study

<u>Public Service</u>	<u>Service Provider</u>
Building Inspection	City of San Ramon
Fire Protection	San Ramon Valley Fire Protection District, Dublin San Ramon Services District, or the City of San Ramon
General Government	City of San Ramon
Library	Contra Costa County
Parks and Recreation	City of San Ramon
Planning	City of San Ramon
Police Protection	City of San Ramon (1)
Road Maintenance	City of San Ramon (1)
Sewage Transmission, Treatment and Disposal	Central Contra Costa Sanitary District Dublin San Ramon Services District/ Livermore Amador Valley Water Management Agency
Street Lighting	City of San Ramon
Water Treatment and Transmission	East Bay Municipal Utility District

Note: (1) These services are presently provided on a contractual
basis by Contra Costa County. Future City Councils will
determine the continuance of this service delivery method.

Source: McDonald & Associates

4. Water Service

The East Bay Municipal Utility District (EBMUD) would be the provider of water service to the recommended Sphere. Most of the recommended Sphere is presently outside EBMUD's service area, and extension of services would be preceded by an enlargement of EBMUD's Sphere of Influence and annexation to its service area. Significant capital improvements, including water mains and reservoirs, will be required for service extension to virtually all undeveloped portions of the recommended Sphere. This analysis assumes that these capital improvements could be financed with existing District financing mechanisms, and that service extensions would therefore be consistent with current EBMUD policy.

5. Fire Protection

Urban-level fire protection services are presently unavailable in most undeveloped portions of the recommended Sphere. Provision of fire service could occur through annexation to the service area of either the San Ramon Valley Fire Protection District (SRVFPD), the Dublin San Ramon Services District (DSRSD), the Tassajara Fire Protection District, or directly from the City of San Ramon. New fire stations will be required to serve development in the recommended Sphere, but the specific financing mechanisms will depend upon which District provides fire protection services.

This report does not make a specific recommendation on which of the Districts (or the City of San Ramon) should provide services to the recommended Sphere. In Chapter III, Section D., the report confirms that fire protection could be provided efficiently and within the tax base of the recommended Sphere. The provision of uniform fire protection service levels throughout the Sphere will involve discussions between Dublin, San Ramon, Danville, SRVFPD, DSRSD, and LAFCo. A number of important issues must be resolved prior to determination of whether DSRSD, SRVFPD, or the City of San Ramon should provide services to ultimate City boundaries. Fire protection service issues should be the focus of a separate analysis. A work program to deal with these issues is provided in the Appendix.

6. Parks and Recreation

Park and recreation services within the City of San Ramon are provided by the City and by DSRSD. The present analysis assumes that these services would be provided throughout the ultimate City boundaries by the City of San Ramon. Such an arrangement would reduce the number of overlapping service jurisdictions, and provide for a uniform level of park and recreation service City-wide.

D. Fiscal Analysis and Financing Plan

A comparison of municipal costs and revenues was prepared for the municipal services that would be available throughout the Sphere of Influence after development had taken place. This fiscal analysis was, in effect, a "snapshot" of an end state of development. It reflected the underlying assumptions about land use policies and about policies for public services. The intent is to confirm that:

- The costs of municipal services and the municipal revenue base are in balance.
- The cost of necessary infrastructure can be provided within currently reasonable limits.

The fact that revenues and costs are in balance when buildout has been reached does not necessarily assure that costs and revenues will be in balance throughout the period when development actually takes place. This issue will require careful consideration, but can be dealt with as each major annexation is considered.

I. Basic Assumptions

The fiscal analysis is based on the present structure of municipal finance in the State of California. No new revenue sources were assumed and no existing revenue sources were eliminated. No assumptions about possible changes in State subventions to cities, other than those imposed as of May 1, 1984, were made. The constraints and limitations of Proposition 13, the effects of the appropriations limit, and the manner in which property tax transfers are accomplished were all assumed to continue during the period being analyzed.

Buildout cost estimates for the City of San Ramon were based upon detailed interviews with City staff. These interviews resulted in a proposed staffing plan for 1989/90, when the City would be providing most of the services that it would also provide at buildout within the Sphere. This staffing plan was utilized as a basis for estimates of future incremental cost impacts (discussed below). The plan for delivering public services to presently undeveloped portions of the Sphere is based upon a continuation, at minimum, of present City service levels.

2. Buildout Cost and Revenue Impacts

Table III-2 shows buildout City of San Ramon cost impacts for each Sphere alternative. The cost estimates indicate the impact that each additional Sphere boundary would have on the City, but the estimates do not include the existing City. These costs were based on the interviews noted above. Utilizing the 1989/90 staffing plan for the City of San Ramon, per capita figures were calculated for the purpose of estimating buildout cost estimates.

The calculation of general government costs, for example, was based on 1989/90 staff, supply, overhead, and capital item costs of \$268,000. This amount was then divided by the assumed 1989/90 City of San Ramon population (31,600), which results in a per capita figure of \$8.50. The total incremental population of Sphere B (that is, the population that would be added as the result of City development in Sphere B) was multiplied by \$8.50 to obtain the Sphere B general government cost.

Table III-2

PUBLIC SERVICE COSTS BEYOND EXISTING CITY BOUNDARIES
San Ramon Sphere of Influence Study

	SPHERE A SUBTOTAL	SPHERE B SUBTOTAL	SPHERE C SUBTOTAL	SPHERE D SUBTOTAL

INCREMENTAL COSTS				
General Government	181,600	334,400	372,200	380,300
Planning (Net Cost) (1)	101,300	186,500	207,500	212,100
Police	844,500	1,555,300	1,730,800	1,768,700
Building Inspection (Net Cost) (1)	0	0	0	0
Engineering (Net Cost) (1)	59,800	110,200	122,600	125,300
Road Maintenance	732,100	1,273,200	1,443,400	1,645,700
Recreation	32,900	60,600	67,400	68,900
Park Maintenance	427,300	786,900	875,700	894,900

TOTAL INCREMENTAL COSTS	2,379,500	4,307,100	4,819,600	5,095,900

FIRE PROTECTION COSTS	1,902,700	2,904,200	3,151,500	3,204,900

NOTES: (1) Planning, Building Inspection and Engineering cost impacts are net of licenses and permits and charges for current service revenue amounts. Revenues generated by Building Inspection activities, for example, are equivalent to Building Inspection costs.

(2) Subtotals are cumulative, and do not include the existing City.

Source: McDonald & Associates

A similar process was utilized for all other cost amounts, with three exceptions. Road costs were based upon additional lane-miles added and annual road maintenance costs per lane-mile; park maintenance costs were based upon additional park acreage and park maintenance costs per acre; and Bishop Ranch costs were based upon average municipal service costs per acre for business and research and development parks.

Table III-3 shows annual revenue amounts and General Fund balances. Revenue estimates were based either on per capita measures, on a simulation of the actual revenue distribution process, or on the experience of comparable California cities. The estimates indicate the revenue impact on the City of San Ramon attributable to each Sphere Alternative, but the estimates shown on Table III-3 do not include the existing City.

Property tax revenue would be a major source of revenue to the City of San Ramon, primarily because of the above-average value of new construction assumed for the Sphere. It should be noted that the estimate of property tax revenue was based upon conservative assumptions with regard to the City's share of total property tax revenue generated within City limits. (This share will be formally established within the next several months. The assumptions used in the fiscal analysis was based on Danville's experience and was for convenience only. It in no way reflects City policy. The City intends to review the issue carefully before the property tax base and tax apportionment factors are established).

Other important revenue sources would be sales tax, fuel tax, and vehicle license fees. In practice, not all of the revenues listed on Table III-3 would accrue directly to the General Fund. They have been summarized on the table for purposes of clarity.

Table III-3 also provides the cost totals from Table III-2 and the resulting fund balances. For each Sphere alternative, revenues would exceed costs by a substantial amount. The fiscal analysis was based in all cases on assumptions that would result in conservative cost and revenue estimates. The fund balances shown on Table III-3 are therefore an indication that it would be fiscally feasible, in terms of annual costs and revenues, for the City to provide urban services to the entire area within Sphere B. Individual projects, of course, would require more detailed analysis before commitments of City services to large-scale development projects could be made.

The fire protection cost and revenue analysis is based upon 1983/84 budget and population data for both the San Ramon Valley Fire Protection District and the Dublin San Ramon Services District. Cost estimates were based on the combined per capita experience of both Districts (\$55.70), while revenue estimates were based upon an overall tax apportionment factor of 0.20. The estimates for fire protection are provided only to demonstrate that at a general level of analysis, new development would provide a tax base sufficient to finance annual fire protection operating costs.

3. Capital Improvement Financing

Most portions of the Sphere area outside the current City limits are without any substantial urban infrastructure. These areas will require significant capital improvements, which will be quite costly. This discussion summarizes the major improvements, the responsible agency, and the estimated cost per new dwelling

Table III-3

SUMMARY OF REVENUES AND FUND BALANCES
San Ramon Sphere of Influence Study

	SPHERE A SUBTOTAL	SPHERE B SUBTOTAL	SPHERE C SUBTOTAL	SPHERE D SUBTOTAL

INCREMENTAL REVENUES				
Property Tax				
Residential	761,500	1,389,400	1,544,000	1,577,100
Non-residential	819,000	824,900	827,300	827,300
Total Property Tax	1,580,500	2,214,300	2,371,300	2,404,400
Sales Tax	357,000	605,000	704,200	704,200
Property Transfer Tax				
Residential	63,600	116,000	128,900	131,700
Non-residential	34,200	34,400	34,500	34,500
Total Transfer Tax	97,800	150,400	163,400	166,200
Franchise Fees	143,100	263,600	293,400	299,800
Licenses and Permits (Net) (1)	0	0	0	0
Charges for Current Services (Net)	0	0	0	0
Fines, Forfeits, and Penalties (2)	64,300	118,400	131,800	134,700
Fuel Tax (2)	259,100	465,500	515,000	525,400
Cigarette Tax	48,400	85,400	95,300	96,900
Vehicle License Fee	454,800	837,600	932,200	952,600
Revenue Sharing (2)	84,400	155,400	172,900	176,700
Use of Money and Property	92,700	146,900	161,400	163,800

TOTAL INCREMENTAL REVENUES	3,182,100	5,042,500	5,540,900	5,624,700

TOTAL INCREMENTAL COSTS (4)	2,379,500	4,307,100	4,819,600	5,095,900

FUND BALANCE	802,600	735,400	721,300	528,800

FIRE PROTECTION REVENUE (5)	4,515,800	6,326,600	6,775,200	6,869,900
FIRE PROTECTION COSTS (4)	1,902,700	2,904,200	3,151,500	3,204,900

FIRE PROTECTION FUND BALANCE	2,613,100	3,422,400	3,623,700	3,665,000

NOTES: (1) This analysis assumes that licenses and permits and charges for current services would only cover costs of issuance (appropriate budget units show net costs). Neither revenue item would be a source of net revenue.

(2) This exhibit is for purposes of general analysis only.

In practice, certain revenues would accrue to dedicated funds.

(3) Subtotals are cumulative, and do not include the existing City.

(4) Please see Table III-2 for a summary of costs.

(5) (Property Tax)

Source: McDonald & Associates

unit. A detailed discussion of capital improvement requirements is located in the Appendix.

Water Facilities Reservoirs, new water mains, pumping stations, and other capital improvements constructed within the East Bay Municipal Utility District's service area are presently financed solely by fees charged to subdividers and developers. These fees would range from approximately \$4,000 per dwelling unit to \$11,000 per dwelling unit or more. Capital costs will be particularly high in the Sphere area because of topographical conditions.

Sewer Facilities The cost of new sewerage facilities will also be quite high. Within Central Contra Costa Sanitary District and Dublin San Ramon Service District service areas, capital costs will add anywhere from \$2,800 to \$15,000 (or more) per dwelling unit.

Road Facilities Approximately 88 lane-miles of new roads will be required to serve development projected for the recommended Sphere (including improvements required within the existing City limits). The total cost for these facilities will be on the order of \$155 million, or \$10,500 per new unit (assuming that the total capital costs are spread over residential units only). Road finance is particularly problematic in California at this time. Likely sources of funds for road improvements within the Sphere would include City of San Ramon fuel tax revenue, special assessments and/or a Mello-Roos Community Facilities District (Government Code Section 53311ff).

In the absence of detailed development proposals, capital improvement costs, and proposed financing mechanisms, it is difficult to provide any conclusions on capital improvement financing. It seems reasonable to speculate, however, that capital requirements will result in substantial increases in the cost of new units within Sphere B. The City of San Ramon will promote the utilization of tax-exempt financing mechanisms, which assist in minimizing the cost of capital improvement financing. However, major capital improvement costs may in and of themselves become a hindrance to the marketing of new units. In addition, the financing of the public facilities noted above (and others not mentioned, including fire stations, police stations, and park facilities) could present formidable problems. These issues, however, will require detailed analysis when large-scale developments are proposed.

APPENDIX
San Ramon Sphere of Influence Study

This Appendix summarizes the issues and alternatives that were considered during the study process that led to a recommended Sphere of Influence for the City of San Ramon. Contents of the Appendix are listed here for convenience.

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A. Spheres of Influence-The Operational Definition

The recommendation for a Sphere of Influence was strongly guided by the definition of a Sphere and by the proposed land uses within the Sphere.

I. Defining the Sphere of Influence

Government Code section 54774 states that

"Among the purposes of a Local Agency Formation Commission (LAFCo) are the discouragement of urban sprawl and the encouragement of the orderly formation and development of local governmental agencies based upon local conditions and circumstances."

To this end, each LAFCo is required to

"...develop and determine the sphere of influence of each local governmental agency within the County. As used in this section, 'sphere of influence' means a plan for the probable ultimate physical boundaries and service area of a local governmental agency."

The detailed criteria for determining the Sphere of Influence are listed in Table A-1.

Assumptions About Land Use The criteria listed in Table A-1 emphasize the provision of public services and indicate clearly that factors relating to public service are the principal determinants of a Sphere of Influence. Only the final criterion (relating to agricultural preserves) deals directly with land use. Nonetheless, it is of considerable importance to recognize that the preceding seven criteria all are determined by assumptions about land use.

Land use determines the first five factors listed in Table A-1. It is the use of land that tests the adequacy and capacity of existing service providers, and that defines major social and economic interdependence between areas. The San Ramon Sphere of Influence study recognized the critical relationship between assumptions about land use and assumptions about capacity to provide public services. The recommended Sphere of Influence was based on a specific set of assumptions about land use policies within the alternative boundaries that were considered for a Sphere of Influence.

The Time Frame for a Sphere of Influence Neither the State statutes nor the guidelines and policies of the Contra Costa Local Agency Formation Commission specify the time frame or planning horizon that should be used to define the "...probable ultimate physical boundaries and service area..." of San Ramon. The statutes recognize that the determination of this "probable ultimate boundary" is not fixed and absolute, in that LAFCo "...shall periodically review and update the adopted sphere." (Emphasis added). Beyond this, the statutes and LAFCo guidelines do not specify a time frame.

The time frame, from the present through 2005, was selected, for purposes of analysis, as one baseline of the San Ramon Sphere study. This time period coincides with the planning horizon for the adopted regional baseline growth

Table A-1

FACTORS TO CONSIDER IN DETERMINING
A SPHERE OF INFLUENCE

Factors that should be considered in determining Spheres of influence include:

- The maximum possible service area of the agency based upon present and possible service capabilities of the agency;
- The range of services the agency is providing or could provide;
- The projected future population growth of the area;
- The type of development occurring or planned for the area, including, but not limited to, residential, commercial, and industrial development;
- The present and probable future service needs of the area;
- Local governmental agencies presently providing services to such area and the present level, range and adequacy of services provided by such existing local governmental agencies;
- The existence of social and economic interdependence and interaction between the area within the boundaries of a local governmental agency and the area which surrounds it and which could be considered within the agency's sphere of influence;
- The existence of agricultural preserves in the area which could be considered within an agency's sphere of influence and the effect on maintaining the physical and economic integrity of such preserves in the event that such preserves are within a sphere of influence of a local governmental agency.

Source: Government Code Section 54774

forecasts published by the Association of Bay Area Governments. The use of a time frame for purposes of analysis does not necessarily constitute a time boundary for San Ramon's Sphere of Influence. Instead, it provides a useful time framework beyond which questions of population, demand for other land uses, etc., would be entirely conjectural.

Rather than define a Sphere of Influence in terms of a time frame, the key consideration was relative effort required to extend public services. Land area could be considered for inclusion in the Sphere of Influence if services could be extended without major changes in policy or unusual expansion of service capacity. Land use planning considerations and market considerations would define when services would actually be extended.

Consideration was given to a shorter time frame for purposes of analysis. In Contra Costa County, the concept of a ten-year planning horizon for Spheres of Influence has been discussed publicly, although this concept has never been adopted as LAFCo policy. The use of a specific time line (measured in years) was not thought to offer an advantage compared to the approach that was taken.

Use of a short to mid-term time line to define an Area of Public Service Availability can cause dislocations in the land market. An artificial constraint is placed on the land supply that is determined to be within a somewhat arbitrary (e.g.) ten-year urban boundary. The result is an upward pressure on land prices. In practice, the market place has not recognized a corresponding downward pressure on values beyond an arbitrary limit line. The overall effect tends toward an increase in land prices throughout a planning area.

B. Survey of Constraints and Opportunities

I. San Ramon's Area of Planning Interest/Detailed Study Area

a. Area of Planning Interest

For the purposes of this study, the Area of Planning Interest (API) is defined as the area within which planning and development decisions directly affect the City of San Ramon, regardless of local government jurisdiction. San Ramon's API is determined mainly by the need to include arterial street or road connections to the freeways from areas potentially within its Sphere. The viewshed of the present City and the developable portions of the San Ramon Valley Unified School District also are included.

API boundaries are:

North: An east-west line north of the I-680 interchange at El Cerro Boulevard in Danville.

East: A north-south line about two miles east of Tassajara Road at Finley Road. This is the east boundary of the San Ramon Valley Unified School District.

South: An east-west line about one mile south of I-580. Development at the north edge of Alameda County and road connections to I-580 will affect land use east of the Dougherty Hills.

West: The Alameda County boundary and Las Trampas Regional Wilderness fall along ridgelines that form a definite boundary.

b. Detailed Study Area

This term is applied to the area within the API that has sufficient potential for inclusion in the recommended Sphere to warrant detailed study of land capability and services availability. Included are unincorporated portions of Contra Costa County except lands on the far sides of ridges near the boundaries of the API. The recommended Sphere of Influence is coterminous with the Detailed Study Area at some locations.

The detailed study area includes 28,600 acres (44.7 square miles) of which 4,600 acres (7.2 square miles) are within the City of San Ramon. Forty-seven percent of the detailed study area is less than 25 percent slope.

2. Baseline Estimates of Development Potential

a. Introduction

This portion of the Sphere of Influence study assesses the growth potential for housing, commercial and industrial development in the San Ramon Detailed Study Area. The Detailed Study Area has been defined as that geographic area from the Contra Costa/Alameda County line at Interstate 680, west to the ridge, north to Bollinger Canyon, east beyond Camino Tassajara and south the the Park Reserve Forces Training Area.

Research and analysis of office and industrial markets in Contra Costa and Alameda Counties as well as the housing market in Contra Costa County was utilized to evaluate the impact of future development in San Ramon. This Section of the Appendix presents the estimates of growth based on market forces.

b. Market Analysis

In order to define the market area for potential development, a survey of seventeen Contra Costa County and Alameda County realtors and leasing agents and ten Contra Costa County developers was conducted. Each interview provided information regarding the geographic origin of demand for housing, office space, industrial space, market rental rates and location of expected competition. A majority of the survey respondents stated that the overall market area for housing, office and commercial activity for San Ramon extends from Walnut Creek south to Pleasanton. Data assembled from these interviews were incorporated with development forecasts provided in projections outlined by the Association of Bay Area Governments and the Center for Continuing Study of the California Economy. The results of the analysis are outlined below.

1) Employment Outlook

Employment growth and expected economic expansion in Contra Costa will directly affect the future development patterns in the Detailed Study Area. For this reason, we surveyed employers, planning departments and developers to determine future employment growth and expansions.

The focus of the most intense development efforts in the Bay Area since the late 1960s have been centered in Contra Costa County. Growth in the central area of the County has proceeded along Highway 24 and Interstate 680 corridors. Massive tract housing developments in the 1960's and 1970's along these corridors were followed by extensive suburban office growth and industrial park development which continues today.

As growth has continued, the availability of land in such areas as Concord and Walnut Creek has diminished. This phenomenon has created pressure for continued development eastward along Highway 4 into Pittsburg and southward along Interstate 680 to San Ramon. As developable sites along Interstate 680 are built out, eastern Contra Costa County will experience a major new increment of demand for industrial, housing and office space.

Generally, existing employment is stable with no major dislocations expected. Table B-1 lists the major employers in Contra Costa County. Those firms with the greatest decline are connected with the steel and construction industries, sectors

hampered by increased foreign competition and the recession respectively. The remaining firms expect no change in employment growth over the next few years, and a few increased their employment over the past year and anticipate continued growth. In view of a national economy recovery that is slightly more robust than originally anticipated, a number of firms may increase their hiring in response to rising demand from producers or consumers.

Contra Costa County has suffered some economic dislocation due to company shutdowns in the last year; the impact, however, has been limited when compared to more industrial counties such as Alameda. In 1983 (through October) the County experienced the shutdown of four companies employing more than one hundred people. The total number of employees displaced by these shutdowns was 1,100, according to the State of California Employment Development Department.

Two of these shutdowns occurred in the retail sector: Liberty House (department store) and Treasury Stores (discount house) closed operations in Contra Costa County, resulting in a loss of about 600 jobs. However, both Liberty House locations were leased by Ross Stores, Levitz and the Sofa Factory. The Treasury Store is now a Gemco, which employs more than 100 people in its Pleasant Hill location.

A business services firm, with scattered locations throughout the County also closed its doors, along with Richmond Hospital, a private institution. These job losses have been more than offset by employment gains in other sectors.

According to a survey of local area planning and economic development officials, considerable additional expansion is planned for the area during the decade 1983 through 1993. Table B-2 shows office, industrial and some retail developments planned for the area during the next ten years. For Contra Costa County, approximately 19 million square feet of office and related retail space is planned during this decade. Using the standard factors of 250 square feet per office employee and 500 square feet per retail and industrial employee, this amount of building expansion should result in an additional 66,000 jobs.

In addition to these primarily office-focused developments, a total of 5,896,417 square feet of industrial-business parks are similarly planned or underway, with 625,000 square feet currently available. This industrial expansion should provide an additional several thousand jobs.

To arrive at estimates of market potential for office, industrial, commercial and housing development in the Detailed Study Area, all appropriate State and local government data series, forecasts and plans were reviewed. Data from private sources was utilized to supplement that secured from public entities. Real estate brokers, leasing agents and developers were interviewed to assess the demand for and supply of space. As part of this market analysis, office, industrial and housing developments were surveyed with respect to size, price or rent, location, absorption and amenities.

Finally, a survey of major employers and developers in Contra Costa County was conducted. The survey served to determine present and future employment levels and confirm development expansions. Due to resource constraints, exhaustive market surveys on all types of land uses were not conducted, and information provided by developers and real estate brokers was analyzed.

2) Office Market

Survey respondents stated that a sizeable portion of demand for space over the next decade will come from firms already located in Contra Costa County. These firms are fast growing medium-size enterprises which have outgrown their space and must move to more accommodating quarters.

Continued strong demand is expected from San Francisco firms and Oakland firms that desire to relocate to Contra Costa County to take advantage of lower lease rates, proximity to labor force and available housing. This influx of firms is expected to be reduced from past levels, but remain a fairly significant source of demand for office space throughout the Bay Area. A survey of major employers and major developers in Contra Costa County generally and the San Ramon Valley area in particular has resulted in a sizeable forecast for office development by 1993.

Upward of eight million square feet of space is in various stages of planning for development by 1993 in San Ramon's Detailed Study Area. The largest share of space to be developed is at Bishop Ranch (see Table B-2). Based on current vacancy rates, absorption levels and office space planned for development, it is unlikely that the San Ramon area will absorb more than 40 percent of this space by 1990, assuming full occupancy. Table B-3 presents data on annual office space absorption for three Bay Area counties from 1981 to 1983.

Prior relevant market research and analysis, together with additional data forecasts by the the Center for Real Estate and Urban Economics at the University of California, Berkeley, indicate that if all planned space were to be developed, leasing agents and developers could expect an extremely high vacancy rate, well above the 25 percent level. For this reason, the market will respond to what is defined as an oversupply situation and future development will likely be at a more reduced level.

3) Neighborhood/Community Commercial

Survey data indicates that the overall thrust of commercial development in the San Ramon area will be primarily local-serving for a number of reasons. San Ramon is bounded by two different regional shopping center facilities, one in Walnut Creek and the second in Pleasanton (Stoneridge Mall). Over 400,000 square feet of new retail space in Walnut Creek is projected to be developed and occupied in 1986-1987. Furthermore, 100,000 square feet of new space on Crow Canyon Road is currently projected to be completed in two to three years. This development on Crow Canyon Road is substantially local-serving. Given the strength of the current and future office market in San Ramon and the northern and southern regional shopping areas, we expect that there will be sufficient demand for continuing neighborhood community commercial space in San Ramon.

4) Industrial Analysis

The market for industrial development in San Ramon differs significantly from the office and commercial market. Surveys conducted for this study indicate that San Ramon's competition is primarily for users who are relocating out of Silicon Valley and into areas such as the Hayward industrial market, Coyote Point and South San Jose. This extends to Pleasanton and Livermore, where, at present, higher vacancies are the norm. Realtors have indicated that precise figures for industrial

absorption do not exist for San Ramon. However, they have stated that industrial space is difficult to market because of the sewage problems that exist in the San Ramon/Livermore/Pleasanton area. Furthermore, with the construction of over two million square feet of office space at Bishop Ranch, a "build-to-suit" industrial development environment exists not only at Bishop Ranch but in the market area generally. As a result, Bishop Ranch has created a primarily office market environment and industrial uses are highly specialized.

5) Residential

A survey of realtors indicates that with the recent development of Bishop Ranch, and the relocation of Chevron and Pacific Bell, the majority of new homebuyers locating in San Ramon are from other locations in California and out of state. This contrasts to a year ago, where the majority of homebuyers were already living within the San Ramon area or nearby communities of Livermore and Tracy. The basic thrust of housing in San Ramon is an upward mobility pattern from parts of Alameda County to San Ramon and from San Ramon to Danville and Alamo.

Presently, there is a substantial demand for rental units in San Ramon, particularly in single-family detached housing. Realtors have stated that these units are absorbed very rapidly -- less than one month and in many cases at the time they are placed on the market. The absorption of multi-family dwelling units is more difficult to project. Minimum activity has existing in the multi-family housing market since Vintners Gardens was converted to condominiums in 1979.

The construction of approximately 600 to 700 multi-family dwelling units over the next two to three years has been planned by several developers. Current single-family housing prices together with the influx of 16,000 new employees resulting from office and industrial developments in the Detailed Study Area could expedite the development of these units.

With the current and future development of office and light industrial space in the San Ramon area, and given the propensity of employees to live close to work, it is not unreasonable to expect that the demand for housing, both single-family detached and multi-family, will increase over the next ten to fifteen years. San Ramon can expect to capture a share of employees who either have not owned or rented in the area before or who wish to relocate.

The extent of this capture rate is, among other things, a function of price. As employment increases in the area, upward pressure will be placed on the housing stock with expected price increases. With the current average price of new housing in San Ramon estimated at approximately \$200,000 (see Table B-4), we may assume that not only will the demand for rental units increase significantly in the short term, but consumers may choose to reside in outlying areas of Contra Costa and Alameda Counties where housing prices are thirty to fifty percent below San Ramon's market (see Tables B-5 and B-6). High land prices, increased house prices and more affordable housing units outside the Detailed Study Area may preclude strong absorption of market rate units in the San Ramon area.

c. Growth Potential

Based on the market research, growth forecasts have been estimated for the San Ramon Detailed Study Area (see Table B-7). The boundaries for this area, under pure market conditions, extend from the Alameda County/Contra Costa County line

west to the foothills, north to Danville and as far east as appears reasonable, certainly beyond Camino Tassajara. Overall, we expect that the market will not absorb more than an average 300 units per year. This represents 6.9 percent of the annual expected requirement through 1990 (see Table B-8).

Research conducted as part of this analysis indicates that a total of 5,100 dwelling units will be developed by the year 2000. Approximately 580,000 square feet of neighborhood community commercial retail space, 5,300,000 square feet of office and office professional space and 1,200,000 square feet of light industrial space will likely be completed by that time.

When comparing these forecasts with Association of Bay Area Governments (ABAG) projects from 1985 to the year 2000, the expected household population growth for the Detailed Study Area alone will exceed the growth projected by ABAG for the entire submarket Alamo to San Ramon by 4.2 percent. Detailed Study Area projections indicate that additions to the household population will equal 13,448 residents (see Table B-9).

Based on the development outlined in Table B-7, we expect that 24,760 new employees will be added to the work force in the Detailed Study Area. This figure exceeds ABAG's figure for the entire Alamo-San Ramon area by 28.7 percent.

Table B-1

MAJOR EMPLOYERS IN CONTRA COSTA COUNTY, 1984
San Ramon Sphere of Influence Study

Employer (Line of Business)	Location	Current Employment	Employment Growth
Contra Costa County	Martinez	6,350	Slight decrease possible
Mt. Diablo School District	Concord	6,000	No change expected
Pacific Bell	San Ramon	2,830	Approximately 4,000 employees to transfer from outside County to new Bishop Ranch building in early 1985
Chevron U.S.A. Inc. (Manufacturing)	Richmond	2,600	No change expected
Standard Oil Co. of California, Chevron U.S.A., Inc. (Accounting, exploration, land and production services, travel card services)	Concord	2,350	1,100 employees to move from SF to San Ramon from July-December 1984; an additional 450 by summer of 1985. (750 employees to transfer from Concord to San Ramon in 1985).
Syston-Donner Corp. (Equipment Testing)	Concord	1,782	No change expected
U.S. Naval Weapons Station	Concord (1,200 civilian; 500 military)	1,700	No change expected
Chevron Research Company (Manufacturing)	Richmond	1,640	No change expected
United Grocers, Ltd.	Richmond	1,600	No change expected
U.S. Steel	Pittsburg	1,400	No change expected
Veteran's Administration Hospital	Martinez	1,353	No change expected
Mt. Diablo Hospital	Concord	1,350	No change expected
California & Hawaiian Sugar Co.	Crockett	1,250	No change expected
U.S. Steel Corporation	Pittsburg	1,200	April lay-offs of 185 employees (closed wire mill); no further changes expected

Table B-1 (Continued)

MAJOR EMPLOYERS IN CONTRA COSTA COUNTY, 1984
San Ramon Sphere of Influence Study

Employer (Line of Business)	Location	Current Employment	Employment Growth
Safeway Stores	Richmond	1,200	No change expected
Leshner Communications, Inc. (Newspaper owner/publisher)	Walnut Creek	1,200	Increased by 15 percent in recent months
San Ramon Valley Unified School District	Danville	1,175	No change expected
Shell Oil Company	Martinez	1,019	No change expected
Tosco Corporation	Martinez	774	No change expected
City of Richmond	Richmond	693 FT 166 PT	Cannot predict
P.G. & E.	Concord	650	Cannot determine
Dow Chemical USA	Pittsburg	625	No change expected
AT&T Information Systems	County-wide	564	No change expected
City of Concord	Concord	500 (+300 PT Summer)	Increase of 15 full-time in next two years
Union Oil of CA (Petroleum Refining)	Rodeo	500	No change expected
Varian Aerograph Varian Instrument Div. (Chemical analysis and instrumentation)	Walnut Creek	498	No change expected
Doctor's Hospital of Pinole	Pinole	430	No change expected
Los Medanos Hospital	Pittsburg	425	Slight increase
Bio-Rad Laboratories (Manufacturing)	Richmond	425	10 percent/year increase

Table B-1 (Continued)

MAJOR EMPLOYERS IN CONTRA COSTA COUNTY, 1984
San Ramon Sphere of Influence Study

Employer (Line of Business)	Location	Current Employment	Employment Growth
Zehntel, Inc.	Walnut Creek	400	Slight increase
Louisiana - Pacific Corp. San Joaquin Pulp & Board Mill (Kraft liner, corrugating medium)	Antioch	400	No change expected
Glass Containers Corporation (Glass bottles and jars)	Antioch	365	No change expected
Chevron Chemical Co. (Research and development)	Richmond	325	30 percent increase in next 2-3 years
Stauffer Chemical Co., Western Research Center (Chemical research)	Richmond	310	No change expected
GEMCO	Pleasant Hill & Walnut Creek	305	No change expected
University of California Richmond Field Station (Research and graduate studies)	Richmond	300	No change expected
Plant Maintenance Inc. of California (Refinery)	Martinez	300	Fluctuates
East Bay MUD	County-wide	300	No change expected
Chevron Chemical Co.	Richmond	273	Decrease by 50 by year-end
City of Walnut Creek	Walnut Creek	244	No change expected
E.I. duPont de Nemours & Company (Chemicals)	Antioch	235	No change expected

Table B-1 (Continued)

MAJOR EMPLOYERS IN CONTRA COSTA COUNTY, 1984
San Ramon Sphere of Influence Study

<u>Employer</u> (Line of Business)	<u>Location</u>	<u>Current Employment</u>	<u>Employment Growth</u>
E.G. & G. (Engineering & research)	San Ramon	235	No change expected
Crown Zellerbach Corp. (Paperboard)	Antioch	230	No change expected
California Peanut Co. (Candy manufacturer)	Richmond	225	Adding new building sometime in 1985; 100 employees to be added in future.
AT&T Communications	County-wide	219	No change expected
Color Spot (Wholesale potted plants)	Richmond	215	Seasonal decrease; some expansion planned (no estimate).
IT Corporation (Engineering)	Martinez	200	Steady growth
Continental Can Co. Inc.	Pittsburg	200	No change expected
Johns-Manville Sales Corp. (Building materials)	Pittsburg	200	10 percent increase in next 2 years
Dennison Eastman Corp. (Tags, labels, forms)	Richmond	190	No change expected
Nicolet Zeta Corporation (Digital incremental plotters)	Martinez	180	Will increase (no estimate)
Siemens Medical Laboratories	Walnut Creek	175	Up to 25 new employees in next 2 years
Universal Bldg. Services & Supply (Building maintenance)	Richmond	175	No change expected
Ford Motor Company	Richmond	172	No change expected
Contra Costa Water District	Concord	160	No change expected
City of Antioch	Antioch	154	No change expected

Table B-1 (Continued)

MAJOR EMPLOYERS IN CONTRA COSTA COUNTY, 1984
San Ramon Sphere of Influence Study

Employer (Line of Business)	Location	Current Employment	Employment Growth
Eastman Kodak Co. (Distribution Center)	San Ramon	150	Closing center by October 1984
Crown Cork & Seal Co. (Mfg. of cans and caps)	Richmond	147	Slight decrease expected (converting from steel aluminum).
Discovery Toys (Educational toys)	Pleasant Hill	146	Steady growth
Allied Corporation (Chemicals)	Pittsburg	145	No change expected
Del Monte Corp. Research Center (Product & process R&D)	Walnut Creek	145	Recent 20 percent increase. Additional 10-15 percent increase in 3-4 months. 20-25 employees transferring to San Francisco by June.
Veriflo Corporation (Mfg. medical apparatus)	Richmond	145	No change expected
City of Pittsburg	Pittsburg	142 FT 73 PT	No change expected
Alcal Roofing and Insulation	San Ramon	140	Seasonal fluctuations only
Hysol Div. The Dexter Corp. (Aerospace & industrial structural adhesives)	Pittsburg	140	Would not comment
Noll Manufacturing Co. (Sheet Metal)	San Pablo	135	No change expected
Tracor MBA Associates (Scientific technology)	San Ramon	130	No change expected
Brentwood School District	Brentwood	130	2-3 new during next 2 years
Walnut Creek Hospital	Walnut Creek	130	No change expected
City of Pleasant Hill	Pleasant Hill	125	No change expected

Table B-1 (Continued)

MAJOR EMPLOYERS IN CONTRA COSTA COUNTY, 1984
San Ramon Sphere of Influence Study

<u>Employer</u> (Line of Business)	<u>Location</u>	<u>Current Employment</u>	<u>Employment Growth</u>
City of San Pablo	San Pablo	125	Two new positions open now
Stauffer Chemical Co. (Mfg. chemicals)	Richmond	123	Would not divulge
Atlas Foundry & Mfg. Co. (Gray & ductile iron castings)	Richmond	120	Recent 20 percent decrease. No further change expected.
Chevron U.S.A., Inc. (Market fuel)	San Ramon	120	No change expected
Zeltex, Div. of Silicon General Inc. (Operational amplifiers, computer elements)	Concord	115	Would not comment
Badger/TTI, A Unit of General Signal Inc. (Electronic test equip.)	Richmond	112	35 percent decrease in June 1983; coming back slowly
CD Medical (Medical supplies)	Concord	112	Closing in 1985. First layoffs to occur in June 1984.
City of Martinez	Martinez	112	Some increase expected (engineers; building and planning inspectors)
Brown Newspaper Publishing	Richmond	110	CLOSED 5/11/84
Richmond Sanitary	Richmond	110	No change expected
Amot Controls Corporation (Thermostatic valves, engine safety controls)	Richmond	109	Recent 10 percent increase; no further change expected.
Wiegmann Rose Intl. Corp. (Manufacturing, machine shop)	Richmond	107	No change expected

Table B-1 (Continued)

MAJOR EMPLOYERS IN CONTRA COSTA COUNTY, 1984
San Ramon Sphere of Influence Study

Employer (Line of Business)	Location	Current Employment	Employment Growth
Canteen Company of Contra Costa (Food services)	Antioch	105	No change expected
Pinole Point Steel Co. (Production of galvanized steel)	Richmond	104	No change expected
Rheem Manufacturing Co. (Mfg. containers)	Richmond	100	Will decrease 40 percent by year-end and remain stable.
Micropump Corporation (Manufacture pumps)	Concord	100	No change expected
Gold Bond Bldg. Products (Mfg. of gypsum wallboard)	Richmond	100	No change expected
Domtar Gypsum America, Inc. (Wallboard)	Antioch	100	Would not comment
Levin Metals Corp. (Scrap metal processing; marine equipment sales)	Richmond	100	Slight decrease in past months. No further changes.

Table B-2

CONFIRMED MAJOR ECONOMIC EXPANSIONS, 1983-1993
CONTRA COSTA COUNTY
San Ramon Sphere of Influence Study

Project	Location	Size ⁽¹⁾	Expected Number of Employees ⁽²⁾	Expected Year of Completion
1. Bishop Ranch Business Park	San Ramon ⁽³⁾	8,500,000	21,000	1984-1995
Major Tenants:				
Beckman Instruments		500,000	800	1984-1990
Toyota Motor Sales, USA		425,000	100	No schedule
Pacific Bell		1,750,000	4,500	1985
Chevron		2,300,000	6,000	1984-1990
2. Bank of America (Data Processing and Credit Card Division)	Concord	1,000,000	4,400	1984-1987
3. Hilltop-Chevron Office Park	Richmond	950,000	4,200	1985-1999
4. Golden Triangle	Walnut Creek		4,050	
California Plaza		360,000	1,600	1985
1600 Riviera Office Bldg.		125,000	550	1984
Tishman West Office Center		320,000	1,420	1984
Williamson Riviera Court Office Building		108,000	480	1984-1985
5. One Concord Centre (Office)	Concord	728,000	3,235	1986-1988
6. Concord Gateway Towers (Office)	Concord	584,000	2,595	1985-1986
7. Town Center	Walnut Creek	550,000+	2,000	1986-1987
Macys		150,000	300	
Other Retail		100,000	200	
Hotel		240 Rooms	240	
Office		275,000	1,200	
8. Twin View (Office & Commercial)	Martinez	500,000	1,600	1985-1990
9. Wieting Confer Nance Project (Office)	Concord	450,000	2,000	1984-1985

(1) Square feet (unless otherwise noted) in planning, under construction, or to be leased.

(2) One employee per 225 square feet of office space.

One employee per 500 square feet of retail space.

One employee per hotel room.

(3) San Ramon includes adjacent unincorporated areas.

Table B-2 (Continued)

CONFIRMED MAJOR ECONOMIC EXPANSIONS, 1983-1993
CONTRA COSTA COUNTY
San Ramon Sphere of Influence Study

Project	Location	Size ⁽¹⁾	Expected Number of Employees ⁽²⁾	Expected Year of Completion
10. Pacific Gas & Electric	Concord	Option on two blocks next to Bank of America	2,000	In planning
11. Wells Fargo Bank	Bishop Ranch or Concord	Selecting site	2,000	In planning
12. Creekside at San Ramon (Office)	San Ramon	360,000-400,000	1,600-1,780	1985-1989
13. 1333 North California Blvd. (Office)	Walnut Creek	350,000	1,550	1985-1990
14. Shadelands Business Park	Walnut Creek	331,000	1,504	1984-1985 1984 1984
Orchard Park		86,000	344	
Shadelands West Phase I		45,000	360	
Shadelands West Phase II		200,000	800	
15. Oak Court (Office)	Pleasant Hill	300,000	1,335	1985
16. Treat Corners (Office)	Walnut Creek	300,000	1,335	1985-1987
17. 3401 Crow Canyon Road	San Ramon	270,000	1,200	1984
18. Vista Oaks (Office and Commercial)	Martinez	257,000	1,140	1984-1986
19. Crest Office Park (Office)	Martinez	250,000	1,110	Unknown
20. Growers Square (Office)	Walnut Creek	200,000	890	1985
21. Galaxy Associates Building (Office)	Concord	180,000	800	1985-1986
22. Concord Airport Plaza (Office)	Concord	180,000	800	1985

(1) Square feet (unless otherwise noted) in planning, under construction, or to be leased.

(2) One employee per 225 square feet of office space.
One employee per 500 square feet of retail space.
One employee per hotel room.

Table B-2 (Continued)

CONFIRMED MAJOR ECONOMIC EXPANSIONS, 1983-1993
CONTRA COSTA COUNTY
San Ramon Sphere of Influence Study

<u>Project</u>	<u>Location</u>	<u>Size</u> ⁽¹⁾	<u>Expected Number of Employees</u> ⁽²⁾	<u>Expected Year of Completion</u>
23. Peri Executive Center (Office)	Walnut Creek	175,000	780	1985
24. 500 Ygnacio (Office)	Walnut Creek	130,000-160,000	580-710	1985-1987
25. Marina Bay (Office and Commercial)	Richmond	200,000	600	1984-1993
26. Hookston Square (Office)	Pleasant Hill	125,000	550	1985
27. Graham Development* (Office)	Pleasant Hill	115,000	510	1986
28. Gateway Center (Office)	Walnut Creek	114,000	510	1985
29. The Terraces (Office)	Pleasant Hill	112,000	500	1985
30. Crossroads Development (Office and Commercial)	Orinda	110,000	490	1986
31. Alpine Square (Office)	Walnut Creek	140,000	460	1984
32. Mitchell Mercer Development (Office)	San Ramon	120,000	530	1985
33. Muir Office Park	Martinez	100,000	440	1985
34. Park Terrace (Office)	Hercules	88,000	390	1985
35. Treat Executive Center	Walnut Creek	83,000	370	1985
36. One Ygnacio Plaza (Office)	Walnut Creek	80,000	355	1985
37. Canyon Commons Corporate Plaza (Office)	San Ramon	40,000	355	1984
38. Canyon Creek Corporate Plaza	San Ramon	60,000-80,000	270-355	1985-1986

(1) Square feet (unless otherwise noted) in planning, under construction, or to be leased.

(2) One employee per 225 square feet of office space.

One employee per 500 square feet of retail space.

One employee per hotel room.

* Firm has two other major developments in planning which are yet to be announced.

Table B-2 (Continued)

CONFIRMED MAJOR ECONOMIC EXPANSIONS, 1983-1993
CONTRA COSTA COUNTY
San Ramon Sphere of Influence Study

Project	Location	Size ⁽¹⁾	Expected Number of Employees ⁽²⁾	Expected Year of Completion
39. Ramada Hotel	Walnut Creek	350 Rooms	350	1985
40. Lewis Executive Center (Office)	Martinez	72,000	320	1985
41. Sobrante Glen Office Park	El Sobrante	70,000	310	1985
42. Concord Golf Executive Park (Office)	Concord	66,000	295	1984
43. One Corporate Center (Office)	Concord	65,000	290	1984
44. Center Point (Office)	San Ramon	64,000	285	1984
45. Center Plaza	San Ramon	64,000	285	1985
46. Muir Parkway (Office)	Martinez	60,000	270	1984
47. Camino Canyon Corporate Plaza	San Ramon	60,000	270	1984
48. Interland Executive Park	Walnut Creek	60,000	270	Unknown
49. Crow Canyon Terrace	San Ramon	60,000	270	1985
50. Enea Square - Phase IV (Office)	Concord	52,000	230	1984-1985
51. Creekside at Crow Canyon	San Ramon	50,000	220	1984
52. Civic Plaza (Office)	Walnut Creek	47,000	210	1985
53. Kaiser Hospital Medical Building (Offices)	Martinez	52,000	150-200	1985
54. Woodlands Center (Office)	Walnut Creek	43,000	190	1984

(1) Square feet (unless otherwise noted) in planning, under construction, or to be leased.

(2) One employee per 225 square feet of office space.
One employee per 500 square feet of retail space.
One employee per hotel room.

Table B-2 (Continued)

CONFIRMED MAJOR ECONOMIC EXPANSIONS, 1983-1993
CONTRA COSTA COUNTY
San Ramon Sphere of Influence Study

Project	Location	Size ⁽¹⁾	Expected Number of Employees ⁽²⁾	Expected Year of Completion
55. Hickmott Cannery Commercial (Office and Retail)	Antioch	43,000	190	1985
56. Twin Rivers Executive Plaza (Office and Industrial)	Pittsburg	40,000	180	Unknown
57. Mt. Diablo/Jaymont (Office)	Walnut Creek	30,000	135	Unknown
58. Pinole Point	Richmond	500+ acres to be developed within the next couple of years: housing, light industry		

Total Square Feet 1984 - 1993 = Approximately 20,000,000

Total Employees	1984 - 1985	34,600
	1986 - 1990	28,300
	1991 - 1993*	13,000
TOTAL		<u>75,900</u>

(1) Square feet (unless otherwise noted) in planning, under construction, or to be leased.

(2) One employee per 225 square feet of office space.

One employee per 500 square feet of retail space.

One employee per hotel room.

* Includes employees from projects with unknown timeframes.

Table B-3

ANNUAL OFFICE SPACE ABSORPTION, 1981-1983
ALAMEDA, CONTRA COSTA AND SANTA CLARA COUNTIES
San Ramon Sphere of Influence Study
(Square Feet)

	1980	1981	1982	First Half 1983
Alameda County				
Pleasanton/Dublin/Livermore	162,150	107,807	306,902	323,859
Fremont	173,142	97,273	31,565	(27,320)
Hayward	944	108,342	93,569	6,323
San Leandro	23,224	(8,218)	109,723	30,759
Total	359,460	305,204	541,759	333,621
Contra Costa County				
Walnut Creek (Downtown)	72,559	184,954	324,078	184,386
Walnut Creek (Ygnacio Valley)	298,913	234,966	285,159	56,601
Pleasant Hill/Pleasant Hill - Walnut Creek BART	18,972	119,425	54,385	47,480
Concord	16,814	171,450	114,372	203
Lafayette, Moraga, Orinda	145,838	165,607	(20,484)	8,068
Danville/Alamo	(5,570)	21,861	29,781	2,750
San Ramon	106,936	189,876	254,729	90,509
Total	654,462	1,088,139	1,042,020	389,997
San Jose Metropolitan Area				
San Jose:				
Civic Center	124,144	133,435	374,244	147,544
Meridian	19,600	34,952	22,120	14,430
Agnew	242,590	210,783	252,181	230,246
Eastridge	6,500	4,800	2,510	-0-
Almaden	33,672	24,884	22,750	35,100
Winchester	107,151	72,308	208,757	75,400
Milpitas	0	6,420	2,850	7,000
Total	533,657	487,582	885,412	509,720
TOTAL MARKET AREAS	1,547,579	1,880,925	2,469,191	1,233,338

SOURCES: Coldwell Banker Realtors; The Land Economics Group.

Table B-4

HOUSING CHART, SAN RAMON

San Ramon Sphere of Influence Study

Map Ref.	Name	Location	Type	No. Units Total/Sold	Standing Inventory	Absorption Rate	Bedrooms/ Bathrooms	Sq.Ft./ Unit	Price	Price/ Sq.Ft.	Financing	Amenities
1	Vista San Ramon	San Ramon	SFD	161/129	1	1.4	3+ / 2	2,020- 2,957	\$205,000- 246,000	\$101.49- 83.19	Conventional	Shake roof, carpets, fireplace, stove, dishwasher, microwave, wet bar, barbeque.
2	Twin Creek View Homes	San Ramon	SFD	536/209	0	1.6	3+ / 2	2,042- 2,700	\$179,950 228,950	\$ 88.12- 84.80	Conventional	Landscaping, carpets, fireplace, stove, air conditioning, wet bar, dishwasher, microwave.
3	Royal Ridge	San Ramon	SFD	84/53	2	0.6	4 / 2-1/2	3,020	\$248,000	\$ 82.12	Conventional	Shake roof, carpets, fireplace, stove, dishwasher, microwave, solar water, wet bar, garage door opener.
4	Inverness Park	San Ramon	SFD	320/214	0	0.6	2 / 2 4 + / 3	1,930 3,262	\$189,500- 252,900	\$ 98.19- 77.53	Conventional	Carpets, fireplace, air conditioning, dishwasher, wet bar.
5	Tangerine Court Adult Condominiums	San Ramon	Condo- minium	20/11	9	0.2	2 / 2	1,350	\$123,950	\$ 91.81	Conventional	Garage, carport, garage door opener, dishwasher, stove, carpets, shuffle board, putting green, lawn bowling. (\$52.00/mo. charge for facilities.)
6	Woodvalley (under construction)	San Ramon	SFD	350/N/A	N/A	N/A	N/A	1,400- 1,800	N/A	N/A	N/A	N/A

Source: The Land Economics Group

Table B-5

CONTRA COSTA COUNTY HOUSING DEVELOPMENTS
PRICED BELOW \$150,000
San Ramon Sphere of Influence Study

Map Ref.	Name	Location	Type	No. Units Total/Sold	Standing Inventory	Absorption Rate	Bedrooms/ Bathrooms	Sq. Ft./ Unit	Price	Price/ Sq. Ft.	Financing	Amenities
1	Village View	Richmond	Condo- minium	42/36	6	.2	2/1.5	1,130	\$88,950	\$78.72	5% down 9.95% Bond fi- nancing 12.95% Bond.	Carpeting, all- electric kitchen, drapes, dishwasher, refrigerator, home owners' dues: \$73.81.
2	Sunstream Homes	Hercules	Single- family	1,641/650	5	2.1	3/2 5/2.5	1,354 2,190	\$98,950 119,450	73.08 54.54	Bond fi- nancing 12-7/8% buydown, conven- tional.	Range, oven, dish- washer, disposal, carpeting, fireplace, fencing.
3	Foxbore Heights	Hercules	Single- family	352/136	0	1.6	3/2 3/2 3/2.5 3/2	1,165 1,499 1,499 1,398	\$105,000 120,000 120,000 115,000	\$90.13 80.05 80.05 82.26	Contra Costa Bond Program, 9.5% VA, FHA.	All-electric kitchen, wall-to-wall carpet, fireplace (optional) fencing side and rear, pool and spa. \$31 per month for pool and open area maintenance.
4	Country Village Centex Homes	Martinez	Condo- miniums	200/101	1	.9	2/1 2/2	883 950	\$81,000 90,400	\$91.73 95.16	Contra Costa Bond financ- ing at 9.5% graduated and adjustable rate programs.	Patio, fireplaces in some units, carpets, air conditioning, drapes, dishwasher, refrigerator.
5	Willow Creek	Martinez	Zero Lot Line	209/209	0	1.1	2/2 3/2 3/2+den 3/2.5 4/2.5	1,248 1,374 1,400 1,700 1,709	\$111,950 114,950 115,950 122,950 123,950	\$89.70 83.66 82.82 72.32 72.53	3-2-1 buydown, 83.66 VA, FHA.	Range, oven, dish- washer, disposal, ash cabinets, carpeting, fireplace, ceramic tile entry, laundry room, slate roof, fencing, garage.

SOURCE: The Land Economics Group.

Table B-5 (Continued)

CONTRA COSTA COUNTY HOUSING DEVELOPMENTS
PRICED BELOW \$150,000
San Ramon Sphere of Influence Study

Map Ref.	Name	Location	Type	No. Units Total/Sold	Standing Inventory	Absorption Rate	Bedrooms/ Bathrooms	Sq. Ft./ Unit	Price	Price/ Sq. Ft.	Financing	Amenities
6	Sunrise Ridge	Martinez	Town- homes	261/109	1	2.1	2/2 2/2.5 3/2.5 3/2.5	1,034 1,255 1,350 1,644	\$93,950 101,950 103,950 113,950	\$90.86 81.24 77.00 69.31	FHA/VA Bond 12-1/8% 3-2-1 buydown, conven- tional.	All-electric kitchen, dishwasher, disposal, fireplace, carpets, skylights, double garage, tennis courts, pool, common area. Home- owners' dues: \$31 per month.
7	Muirwood Square	Martinez	Condo- minium	110/108	2	.9	1/1 2+1.5	770 1,158	\$65,000 92,000	\$84.42 79.45	Conven- tional and Pittsburg Bond Program.	Patio, fireplace, carpets, air condi- tioning, all-electric kitchen, pool, dish- washer, trash compac- tor, washer/dryer.
8	Muir Hills	Martinez	Condo- minium	52/40	12	.7	2/2 3/2	1,095 1,165	\$90,650 99,650	\$82.79 85.54	Rent with option to buy.	Range, oven, dish- washer, disposal, trash compactor, carpets, fireplace, double garage, pool.
9	Trees Lagos North	Pleasant Hill	Condo- minium	162/142	20	2.6	2/2 3+2.5	1,168 1,689	\$113,900 134,500	\$97.50 79.63	Conven- tional.	Patio, fireplace, carpets, air- conditioning, all- electric kitchen, cabana, pool, spa, tennis courts, dish- washer, garage door opener, microwave oven. Homeowners' dues: \$90 per month.
10	Cobblestone Court	Pleasant Hill	Condo- minium	56/32	0	.6	2/2 2/2 2/2.5 3/2.5	1,245 1,370 1,670 1,890	\$112,000 120,000 143,000 156,000	89.96 87.59 85.63 82.54	Security Pacific 11.5%, 20% down, 30 years fixed.	All-electric kitchen, dishwasher, disposal, microwave oven, air-conditioning, carpeting, garage, pool, spa, cabana. Homeowner's dues: \$70 to \$80 per month.

SOURCE: The Land Economics Group.

Table B-5 (Continued)

CONTRA COSTA COUNTY HOUSING DEVELOPMENTS
PRICED BELOW \$150,000
San Ramon Sphere of Influence Study

Map Ref.	Name	Location	Type	No. Units Total/Sold	Standing Inventory	Absorption Rate	Bedrooms/ Bathrooms	Sq. Ft./ Unit	Price	Price/ Sq. Ft.	Financing	Amenities
11	Walnut Square	Walnut Creek	Condo- minium	29/29	0	.7	2/1.5	1,200	\$107,900	\$89.92	Conven- tional and Bond.	Patio, fireplace, carpets, air-condi- tioning, all-electric kitchen, pool, dish- washer, mirrored wardrobe doors, microwave oven, refrigerator, wet bar.
12	Diablo Keys	Walnut Creek	Condo- minium Conversion	792/146	357	7.3	1/1 1/1 1/1 2/1 2/2 2-3/2	473-581 726-769 879-923 957 1,041-1,175 1,304-1,380	\$49,000- 147,000	\$103.59- 106.52	Contra Costa County Bond 9.5%. Adjust- able rate loan, 3-2-1 buydown.	All units being refurbished. Full security, laundry facilities, covered parking, lake, two tennis courts, three pools, clubhouse, sauna, spa, dance pavilion. Homeowners' dues are \$115 per month.
13	Larkwood	Walnut Creek	Condo- minium	24/21	3	.5	2/1.5	1,200	\$122,000- 128,000	\$101.67- 106.67	Contra Costa County Bond 9.5%.	All-electric kitchen, wall-to-wall carpets, fireplace, fencing side and rear, swimming pool, land- scaping, laundry facilities. Home- owners' dues: \$63 per month.
14	Mendocino Condominiums	Concord	Condo- minium	94/94	0	1.2	1/1 1/1 2/1 2/1 2/2	646 675 868 887 972	\$57,900 59,900 73,900 74,900 76,900	\$80.63 88.74 85.14 84.44 79.12	FHA/VA FNMA Variable rate with buydown.	All-electric kitchen, dishwasher, disposal, refrigerator, carpet- ing, drapes, carport, pool, clubhouse, laundryroom, picnic area. Homeowners' dues: \$71-83/mo.

SOURCE: The Land Economics Group.

Table B-5 (Continued)

CONTRA COSTA COUNTY HOUSING DEVELOPMENTS
PRICED BELOW \$150,000
San Ramon Sphere of Influence Study

Map Ref.	Name	Location	Type	No. Units Total/Sold	Standing Inventory	Absorption Rate	Bedrooms/ Bathrooms	Sq. Ft./ Unit	Price	Price/ Sq. Ft.	Financing	Amenities
15	Oak Creek Condominiums	Walnut Creek	Condo- minium Conversion	142/128	14	4.1	1/1 2/1	650 950	\$59,000 76,000	\$90.77 80.00	FHA/VA Conven- tional Bond 13-1/4%	Stove, refrigerator, range, dishwasher, disposal, carpets, pool, spa, recreation room. Homeowners' dues: \$89.41 - \$105.61 per month.
16	Sierra Gardens	Walnut Creek	Condo- minium	74/74	0	.8	1/1 2/1	650 1,000	\$76,000- 81,000 95,900	\$116.92- 124.62 95.90	Bond 13-1/4% 9-7/8% 10 yr.	Stove, refrigerator, dishwasher, disposal, carpeting, drapes, carport, pool, spa, sauna, laundry. Home- owners' dues: \$67/mo.
17	Kirkwood Oaks	Concord	Condo- minium Conversion	48/28	20	.7	2/2 2/2	1,239 1,269	\$100,000 110,000	\$80.71 86.68	FHMA 12 7/8% 3-2-1 buydown.	All-electric kitchen, microwave oven, dish- washer, disposal, refrigerator, carpeting, fireplace, single garage, pool. Homeowners' dues: \$64.95 per month.
18	Diablo Village	Concord	Condo- minium	16/7	9	.1	2/1 3/2	800 1,100	\$80,000- 83,000 95,000- 100,000	\$100.00- 103.75 86.36- 100.00	Conven- tional	Range, oven, dish- washer, disposal, washer and dryer, re- frigerator, drapes, carpeting. Home- owners' dues: \$65/mo.
19	Parkridge Condominiums	Antioch	Condo- minium	181/180	1	.4	2/2	944	\$71,000	\$75.21	Contra Costa County Bond 9.5% and 12 7/8% VA/FHA.	All-electric kitchen, wall-to-wall carpet, fireplace, washer and dryer facilities, pool, cabana. \$65/mo. homeowners' dues.

SOURCE: The Land Economics Group.

Table B-5 (Continued)

CONTRA COSTA COUNTY HOUSING DEVELOPMENTS
PRICED BELOW \$150,000
San Ramon Sphere of Influence Study

Map Ref.	Name	Location	Type	No. Units Total/Sold	Standing Inventory	Absorption Rate	Bedrooms/ Bathrooms	Sq. Ft./ Unit	Price	Price/ Sq. Ft.	Financing	Amenities
20	Montaire Meadows #8	Antioch	Single- family	65/23	0	1.0	3/2 3/2 3/2 3/2 3/2	1,166 1,275 1,453 1,440 1,537 1,609	\$81,950 84,950 88,950 89,950 93,950 95,950	\$70.28 66.63 61.22 62.47 61.13 59.63	Contra Costa County Bond 9.5% and 12 7/8%, CHFA Bond 9.95%, VA/FHA.	All-electric kitchen, ceramic tile, wall- to-wall carpet, solar heating (optional), ceramic tile entry.
21	Willcrest Estates	Antioch	Single- family	27/23	4	.9	3/2 3/2 4/2 3/2 3/2 3/2	1,166 1,289 1,436 1,443 1,440 1,537	\$84,950 88,950 91,950 92,950 93,950 94,950	\$72.86 69.01 64.03 64.41 65.24 61.78	Contra Costa County Bond 9.5%, VA/FHA.	All-electric kitchen, wall-to-wall carpets, fireplace, solar heating optional, vaulted ceilings and shake roof.
22	Walnut Estates II	Oakley	Single- family	86/17	0	2.4	3/1 3/2 4/2	1,000 1,171 1,391	\$71,990 77,990 81,990	\$71.99 66.60 58.94	Contra Costa County Bond 9/5%, FHA/VA.	All-electric kitchen, wall-to-wall carpet, fireplace (optional), side and rear fencing

SOURCE: The Land Economics Group.

Table B-6

SUMMARY DATA ON COMPARABLE UNITS
San Ramon Sphere of Influence Study

Unit Price Range	Total Units	Standing Inventory	Total Percent Absorbed	Absorption Rate Per Week ⁽¹⁾	
				With Diablo Keys	Without Diablo Keys
Under \$100,000	2,329	250	53.0%	2.7	1.7
\$100,000-\$120,000	1,932	181	48.4	2.1	1.8
Over \$120,000	402	134	39.1	5.5	1.8
All Units Below \$150,000	4,663	455	50.0	2.7	1.8

Total Estimated Supply for County = 455

Absorption Rate per Week per Development = 1.8

Number of Active Developments = 18

Supply in terms of Number of Weeks = $455 / (1.8 * 18)$

Total Supply = 14

(1) A weighted average for all current projects (weighted by number of total units).

SOURCE: The Land Economics Group.

PROJECTED DEVELOPMENT IN THE DETAILED STUDY AREA
 BASED ON MARKET SUPPLY/DEMAND FACTORS
 San Ramon Sphere of Influence Study

<u>Land Use</u>	<u>1984-1985</u>	<u>1986-1990</u>	<u>1991-1995</u>	<u>1996-2000</u>	<u>Total</u>
Residential Dwelling Units					
Single-family	200	1,200	1,000	600	3,000
Multifamily	<u>300</u>	<u>600</u>	<u>800</u>	<u>400</u>	<u>2,100</u>
Total Dwelling Units	500	1,800	1,800	1,000	5,100
Commercial (Square Feet)					
Neighborhood/Community Commercial	100,000	300,000	100,000	80,000	580,000
Regional Commercial	-0-	-0-	-0-	-0-	-0-
Office/Office Professional	<u>3,000,000</u>	<u>1,000,000</u>	<u>800,000</u>	<u>500,000</u>	<u>5,300,000</u>
Total Square Feet	3,100,000	1,300,000	900,000	580,000	5,880,000
Industrial (Square Feet)					
Light Industrial	<u>500,000</u>	<u>300,000</u>	<u>200,000</u>	<u>200,000</u>	<u>1,200,000</u>
Total Square Feet	500,000	300,000	200,000	200,000	1,200,000

NOTE:

- 1) The estimates of development in this Table are based solely on existing market supply/demand factors. They were prepared before the alternative Sphere of Influence boundaries were defined. The estimates were used as a base estimate of demand, without regard to changes in land use or public services policy by the City of San Ramon.
- 2) The estimates are for the entire Detailed Study Area, for the time period shown. In contrast, the figures in Table B-10 show capacity for the existing city limits of San Ramon and for Bishop Ranch.

SOURCE: The Land Economics Group.

Table B-8

DWELLING UNIT REQUIREMENTS
CONTRA COSTA COUNTY
San Ramon Sphere of Influence Study

	1980	1990
Population	656,380	764,300
Estimated Increase (1980-1990)	107,920	
Estimated Household Formation Rate (1)	$\times \underline{.37}$	
Households Formed	39,930	
Average Annual Households Formed (39,930/10) =	3,993	
Dwelling Units Required for Replacement per year(2)	755	
Vacancy Allowance (2.0%)	80	
Total Housing Units Required/Year	4,828	
Percent Owner-occupied	$\times \underline{.683}$	
Annual Requirement for Owner-occupied Units	3,297	
Less Standing Inventory	$\underline{(455)}$	
Expected Annual Owner-occupied Requirement	2,842	
Expected Annual Renter-occupied Requirement	1,530	

(1) Household Formation Rate = 1/(average household size).

(2) Represents 0.3% of all housing units.

SOURCES: Association of Bay Area Governments, Projections '83;
U.S. Department of Commerce, Bureau of the Census, 1980
Census of the Population; Contra Costa Planning
Department; The Land Economics Group.

Table B-9

ABAG POPULATION AND EMPLOYMENT PROJECTIONS
 ALAMO -- SAN RAMON
 San Ramon Sphere of Influence Study

	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>	Totals Based on Development Forecast <u>2000</u>
Total Population	33,902	37,800	45,800	48,200	49,200	--
Household Population	33,676	37,400	45,500	47,800	48,800	50,848
Households	10,733	12,200	15,150	16,440	17,370	18,095
Household Size	3.14	3.07	3.00	2.91	2.81	2.81
Total Employment	8,482	11,800	16,000	24,900	28,400	36,560

San Ramon Detailed Area of Interest

Additional Household Population 1984 - 2000:	13,448
Additions to Employment 1984 - 2000:	24,760

SOURCES: Association of Bay Area Governments, Projection '83;
 The Land Economics Group.

3. Environmental and Land Use Issues

a. Slope and Seismic Safety Constraints

The primary limitations on development of steep slopes are cost and aesthetics, but much of the steep land in the study area is landslide prone and landslides may be triggered by earthquakes. The maximum credible earthquake would be on the Calaveras Fault running parallel to I-680 about one-half mile west of the freeway (R-106).

About 53 percent of the 28,600 acre detailed study area (44.7 sq. mile including the City of San Ramon) consists of slopes exceeding 25 percent. Much of the steeper land is covered by landslide deposits and, while not automatically disqualified as available for urban development, is in the main unsuitable. Few Bay Area subdivisions that meet current development standards have sites steeper than 25 percent. Derby Drive at the west edge of San Ramon off Bollinger Canyon Road and Morgan Drive will be on land exceeding 25 percent slope. In much of this area and in Bollinger Canyon 40 to 50 percent of the land is covered by landslide deposits (R-109).

Density calculations for the sphere study are applied only to slopes under 25 percent, on the assumption that development on steeper land will not significantly increase the total number of units.

Slopes 15-25 percent and over 25 percent are indicated by tones on the study area base map.

b. Agricultural Land

Except where 5 to 20 acre ranchette parcels have been subdivided, virtually all of the detailed study area east of the currently urbanized area is in parcels of 100 acres or more and under Williamson Act contract. The contract, which in the absence of non-renewal is automatically renewed for a ten-year period annually, sets valuation for property taxes at the agricultural value of the land and prohibits development. Owners of several holdings have given notice of nonrenewal and those currently proposed for development have requested immediate cancellation of their contracts under a "one time only" provision (Robinson Bill Gov. Code 51282.1) that required application during 1981-82. Williamson Act parcels are indicated on the Planning Factors map.

Slopes under 25 percent east of the urban area were designated "Farmlands of Local Importance" in 1982 by a Local Advisory Committee established by the Contra Costa County Resource Conservation District as part of a program sponsored by the California Department of Conservation in cooperation with the U.S. Soil Conservation Service. In 1981, Contra Costa County acted to prevent commitment of more land to ranchettes and to establish a long term policy for agricultural land protection by establishing a boundary, east of which an 80 acre minimum parcel size was set. This is known as the 2218RZ line.

Grazing lands in the detailed study area are markedly superior to the statewide average, providing several times the forage of drier slopes adjoining the Central

Valley. Cash income from grazing is on the order of \$20 per acre per year. Individuals and organizations (such as People for Open Space and 1,000 Friends of Contra Costa County) that favor compact urban development and preservation of a greenbelt have strongly urged that urban development be confined to west of the Dougherty Hills.

c. Ranchettes

Lawrence Road, Finley Road, and portions of Tassajara Road and Highland Road are bordered by parcels predominantly in the 5 to 20 acre range. The calculations for potential urban development assume that a minimum parcel size of five acres or larger will remain, both because a majority of the owners are likely to wish to preserve their lifestyle and because developers would find them relatively uneconomic to develop as long as larger parcels are available.

Ranchettes are designated on the Planning Factors map.

d. Nonresidential Development

When fully developed, the Bishop Ranch Business Park is expected to include 7.5 million square feet of office space, housing 27,000 employees. Projections by the Contra Costa County Planning Department (Table B-10) indicate a total of 10.6 million square feet of office space in San Ramon and Bishop Ranch, and 3.4 million square feet of retail and industrial space. Assuming 280 square feet per office employee and 500 square feet per employee for other space, total employment could reach 45,000, excluding schools and local employment elsewhere within a possible sphere of influence.

TABLE B-10

EXISTING AND POTENTIAL COMMERCIAL AND INDUSTRIAL DEVELOPMENT - CITY OF SAN RAMON AND BISHOP RANCH
San Ramon Sphere Of Influence Study

	CITY OF SAN RAMON						BISHOP RANCH					
	Existing & Under Construction		Potential		Total		Existing & Under Construction		Potential		Total	
	Sq. Ft. ^a	Ac.	Sq. Ft. ^a	Ac.	Sq. Ft. ^a	Ac.	Sq. Ft. ^a	Ac.	Sq. Ft. ^a	Ac.	Sq. Ft. ^a	Ac.
Office space	1,561	115.7	1,590	113.3	3,151	229	3,837	264	3,622	258	7,459	522
Retail space- standard	795	75.0	370	33.8	1,165	109.4	52	3.1	31	2.8	82	5.9
Retail space- financial	43	5.6	20	2.0	63	7.6	-	-	-	-	-	-
Retail space- miscellaneous	96	27.7	-	-	96	27.7	^b	8.3	-	-	-	8.3
Industrial development- service commercial	91	5.2	6	.4	97	5.6	-	-	-	-	-	-
Industrial development- warehouse	281	16.5	3	.2	284	16.7	257	18	131	8.8	270	26.0
Industrial development- L-I/C-M	625	55.2	547	44	1,172	99.2	64	4.8	108	8.7	172	13.5
TOTALS	3,492	300.9	2,536	193.7	6,028	495.2	4,210	298.2	3,892	278.3	7,983	576.5

^a In thousands.

^b Exterior Storage

Source: Contra Costa County Planning Department; Extrapolation by Blayney-Dyett

4. Transportation Issues

a. Introduction

The purposes of this section are to describe existing transportation services, previous projections of travel demands and system capacities, and resultant issues related to transportation service provision within the Area of Planning Interest.

Alternatives for addressing these issues and transportation inputs to a recommended Sphere of Influence are discussed in Appendix C.

It is emphasized that the circulation system developed for the Sphere of Influence study is not intended to take the place of a more rigorous and comprehensive Circulation Element for the City. Rather, its purpose is to ensure that foreseeable circulation needs within the recommended Sphere of Influence can be served at a reasonable cost.

b. Existing Transportation Services

The traffic shed for the Area of Planning Interest (API) and its major transportation facilities are shown in Figure B-11. Also shown are the existing number of lanes (total of both directions) of these facilities.

Freeways: The area is served by I-680 and I-580 freeways. I-680 runs north-south through San Ramon, connecting from Central Contra Costa County on the north to San Jose on the south. It is six lanes wide north of I-580 but is proposed in Caltrans' Short-Range Transportation Improvement Program (STIP) for widening to eight lanes. I-580 is about two miles south of San Ramon. It runs east-west from Oakland through the Dublin Canyon, Pleasanton and Livermore and on to connect with I-5 to the east. It is eight lanes wide within the traffic shed.

Major Streets: Within San Ramon, the major streets include Crow Canyon Road, Bollinger Canyon Road, Alcosta Boulevard and San Ramon Valley Boulevard. Crow Canyon Road and Alcosta Boulevard have interchanges with I-680. An I-680 interchange is also planned at Bollinger Canyon Road. Both Crow Canyon Road and Bollinger Canyon Road are discontinuous to the east, but have been previously proposed for extensions to the east. Crow Canyon Road is an alternative route through the Dublin Canyon to the west. San Ramon Valley Boulevard is a north-south freeway frontage road on the west side of I-680. There is no frontage system on the east side, although Alcosta Boulevard does provide north-south circulation farther east. Other major roadways within the overall traffic shed are Dougherty Road (which becomes Blackhawk Road to the north) and Camino Tassajara. Both are generally two-lane roadways of rural standards, but provide access to I-580 on the south and to I-680 in the north. They are therefore important routes for access to proposed future development east and north of San Ramon.

Traffic Service Levels: Figure B-12 presents existing two-way average daily traffic (ADT) volumes on major roadways, and level of service (LOS) estimates for peak periods. Level of service is an indication of the relative degree of peak-period congestion on the roadway, with letters "A" through "F" denoting successively more congestion. LOS "D" is often considered the greatest amount of congestion acceptable in an urban area, and represents about 90 percent of the roadway's capacity being used.

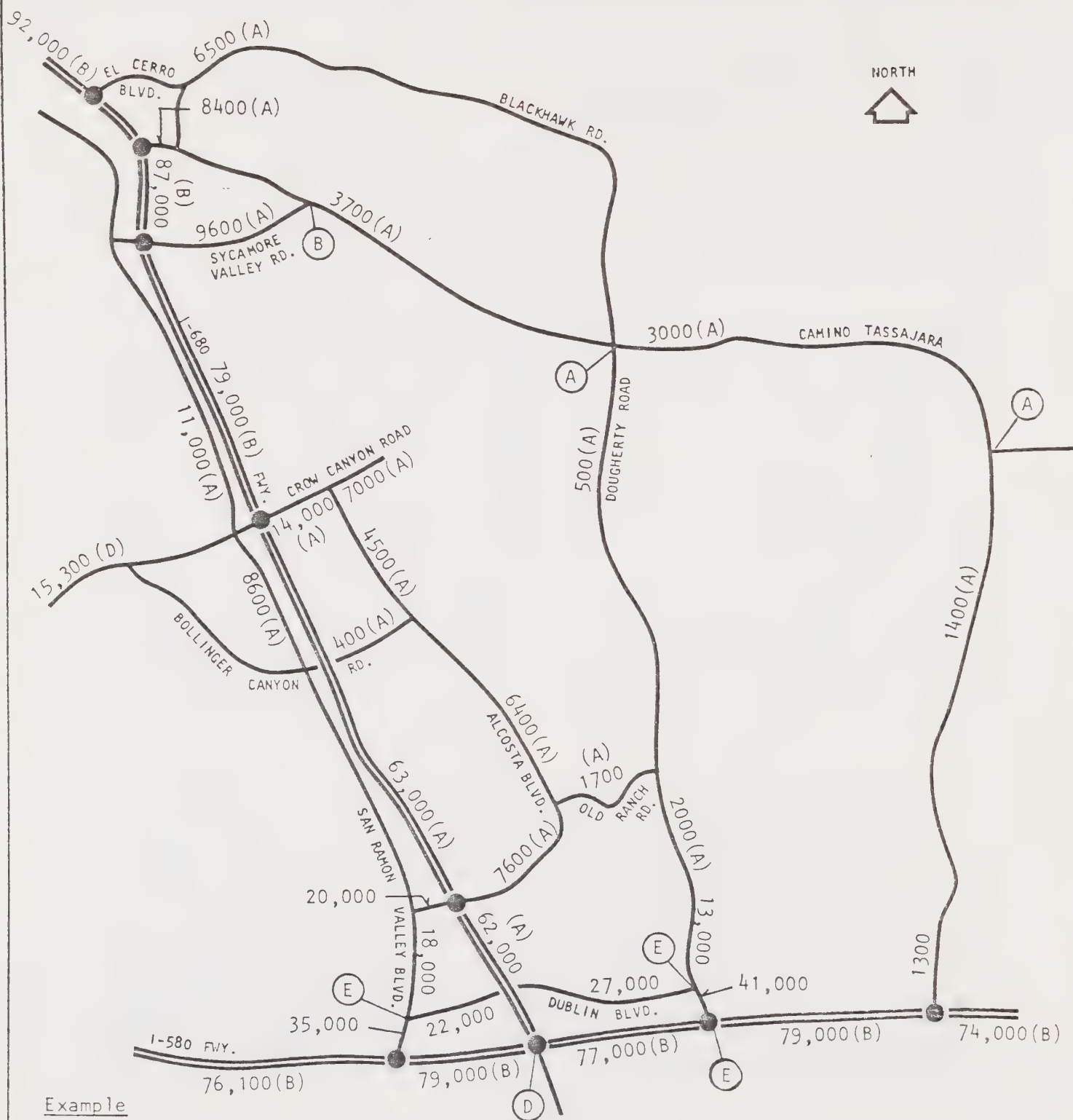


- (4) Existing No. of Lanes (two-way)
 ● Interchange

Figure B-11

**EXISTING TRANSPORTATION SERVICES
SAN RAMON SPHERE OF INFLUENCE STUDY**

Source: DKS Associates



Example

79,000 (A)

Level of Service

Average Daily Traffic Volume
(two-way)

Figure B-12

**EXISTING ADT VOLUMES AND
GENERALIZED LEVELS OF SERVICE
SAN RAMON SPHERE OF INFLUENCE STUDY**

Source: DKS Associates

Acceptable levels of service exist on most major roadways and freeways in the traffic shed. Notable exceptions are on Dougherty Road between I-580 and Dublin Boulevard and at the Dublin Boulevard/San Ramon Valley Boulevard intersection. Acceptable levels are being approached at the I-580/I-680 interchange and in the two-lane section of Dublin Canyon Road (west of I-680). At other locations, good levels of service exist (except perhaps for brief periods of time or on specific intersection approaches) at current traffic volumes.

Public Transit: Area-wide public transit service within the traffic shed is limited to BART Express Routes D and U that provide feeder bus service to the Bay Fair, Hayward and Walnut Creek BART stations. The D Line serves the San Ramon Valley while the U-Line serves the Livermore Valley. Central Contra Costa Transit Authority (CCCTA) is scheduled to extend local service to Alamo, Danville and San Ramon within the next year or so, however. Also, Sunset Development Corporation has initiated a private shuttle service between Bishop Ranch and the Walnut Creek BART station.

BART is investigating routes for extending rail service from Bay Fair through Dublin Canyon and on to Livermore, operating within the I-580 corridor through at least Pleasanton. An alignment has been adopted for the portion from Bay Fair to Dublin, and this project has been included in the Metropolitan Transportation Commission's list of rail projects recommended for Federal funding assistance by 2000. However, competition for Federal funding is keen, and it is therefore not clear whether the Livermore extension will be operational before the 2005 planning horizon of this study. A second potential transit corridor being considered for future service is the Southern Pacific (SP) right-of-way parallel to and east of I-680. No definitive studies of this corridor have been conducted to date, however.

c. Potential Traffic Demands

Previous travel analyses were reviewed to help define future traffic service needs and capabilities. Three recent studies are particularly germane in that they projected future traffic levels and potential mitigation within the Area of Planning Interest:

- Las Positas EIR Transportation Analysis, Wilsey & Ham, revised November 1983.
- Tri-Valley Transportation Study, TJKM Consultants, July 1983.
- Gumpert Ranch DEIR (Traffic Analysis by Barton-Aschman) July 1983

All of these studies projected future traffic levels as a function of population and employment growth forecasts, although assumptions, methodologies and results differ significantly.

Land Use Assumptions: Exhibit B-13 compares the underlying land use projections used in these studies. Both the Las Positas and Tri-Valley studies built off the Association of Bay Area Government (ABAG) Projections' 83 forecasts to year 2000 (extrapolated to year 2005). The Las Positas study simply added the Las Positas population and employment estimates to the ABAG year 2005 projections, while the Tri-Valley Study modified the projections to reflect "reasonably foreseeable" (Scenario 1A) and "reasonably foreseeable or contemplated" (Scenario 2A) site proposals. Scenarios 1B and 2B (only 2B is shown here) extended those projects to build-out, and represents a likely time period well beyond 2005. Those projects within the traffic shed are summarized in Table B-14,

Table B-13

COMPARISONS OF EMPLOYMENT AND HOUSING PROJECTIONS USED IN PREVIOUS STUDIES
San Ramon Sphere of Influence Study

Area	Year 2005						Buildout		
	1983 (1)	ABAG Extrapolated By			Tri- Valley Alt.1A (5)	Tri- Valley Alt.2A (6)	Tri- Valley Alt.2B (7)	Gumpert EIR without infill (8)	with infill (9)
		Las Positas (2)	Tri- Valley (3)	Las Positas (4)					
<u>Employment</u>									
Danville	6,217	16,700	15,893	16,700	6,817	10,027	10,027	n.e.	--
SR-Alamo	10,473	31,900	33,797	31,900	33,797	33,797	48,053	41,000	41,000
Dublin	8,443	11,350	11,107	11,350	10,775	11,107	11,328	n.e.	
Pleasanton	11,010	46,450	43,020	46,450	43,020	43,020	87,225	n.e.	
Livermore	19,527	39,000	36,233	39,000	31,517	36,233	60,227	n.e.	
Las Positas	--	--	--	22,195	--	11,100	22,195	n.e.	
Total	55,670	145,400	140,050	67,595	125,926	145,184	239,055		
<u>Households</u>									
Danville	8,952	11,980	12,755	11,980	12,755	12,755	14,786	13,700	13,700
SR-Alamo	11,834	18,300	19,633	18,300	19,633	19,633	21,986	28,600	35,700
Dublin	4,618	6,510	7,269	6,510	7,269	7,269	8,260	n.e.	
Pleasanton	12,052	22,560	22,185	22,560	22,185	22,185	26,667	n.e.	
Livermore	14,263	26,750	26,363	26,750	26,363	26,363	29,789	n.e.	
Las Positas	--	--	--	18,000	--	9,000	18,000	--	
Total	51,719	86,100	88,205	104,100	88,205	97,205	119,488		

n.e. = not estimated

Sources: See text.

Table B-14

PROPOSED DEVELOPMENTS IN THE SAN RAMON/DANVILLE/DUBLIN TRAFFIC SHED¹

Travel Zone Analysis	Area	Offices (Employees)	Other Commercial (1,000 GSF)	Residential (DU's)
1	West San Ramon	2,604	317	995
2	East San Ramon			1,398
3	Bishop Ranch	25,231	8	-
4 } 5 }	N. Dougherty Hills	-	-	3,687
6	Bollinger Canyon/Danville	1,067	-	396
7 } 8 }	Danville/Blackhawk	2,743	-	5,077
9				
10 } 11 }	Gumbert/ Dougherty/West Branch			13,287
12	West Dublin	1,492	-	1,550
13	East Dublin	1,393	-	2,092
14	Santa Rita Jail Site	<u>4,500</u>	<u>-</u>	<u>-</u>
	Total, All Projects	39,030	325	28,482
Comparison:				
ABAG Projections ² '83		(34,800-35,700)		(11,400-13,800)
1983-2005 Growth ²				

Notes:

¹ Source is Tri-Valley Transportation Study; reasonably foreseeable or contemplated projects at :

² ABAG Projections '83 extrapolated to 1983-2005 period; includes Alamo-San Ramon and Danville areas

Source: DKS Associates

grouped within the zones shown on Figure B-15. (Note: These zones, derived from previous studies, were subsequently modified and renumbered for use in the Sphere of Influence Study.) The Gumpert Ranch study focused on a smaller area (San Ramon, Danville and environs only) and considered buildout of known projects, with and without in-fill of present agricultural lands with residential uses. The projects included in the Gumpert Ranch EIR (including the infill) are consistent with those included in Scenario 2B of the Tri-Valley study.

Traffic Projections: Figure B-16 summarizes traffic projections derived from the three studies. For easy comparison to existing traffic counts, ADT projections are shown. (In the Las Positas and Tri-Valley cases, the ADT volumes were factored from reported PM peak-hour volumes). Only Scenario 2A is shown for the Tri-Valley study 2005 projections since employment projections under Scenario 1A are significantly lower than projected by ABAG and this is not considered likely. Projected volumes were not reported in the Tri-Valley Study for arterials within the traffic shed.

Screenline Volume/Capacity Comparisons: To provide insight into overall corridor traffic needs, generalized volumes and capacities are compared for selected screenlines. The screenlines are shown in Figure B-17. Tables B-18 and B-19 show the volumes and capacities. The first series of columns show existing ADT volume, maximum volumes acceptable for level-of-service "D", and resulting "reserve capacity." The second series of columns assume roadway improvements as previously proposed in the above cited studies, and their effects on reserve capacity. The last two sets of columns compare these higher capacities with projected year 2005 and build-out ADT volumes where available.

Key roadway improvements assumed to be made by year 2005 include:

- Widening of I-680 to eight lanes north of I-580
- Widening of Camino Tassajara and Dougherty Road to at least four lanes.
- Widening of Alcosta Boulevard to four lanes throughout and six lanes near I-680.
- Extension of Crow Canyon Road east to Dougherty Road, and widening on the west end to four lanes through Crow Canyon Road.
- Widening to six lanes and easterly extension of Bollinger Canyon Road, and provision of new interchange at Bollinger Canyon Road I-680.

To achieve the roadway capacities shown, various intersection improvements would also be needed; at this general level of analysis, such modifications have not been identified.

Some observations from the screenline comparisons are given in the next section.

d. Transportation System Issues

Some key transportation issues that follow from the foregoing analyses and from early contacts with City Council members are discussed below. To the extent that these issues influence the recommendation for a Sphere of Influence, they were addressed in subsequent parts of this study.

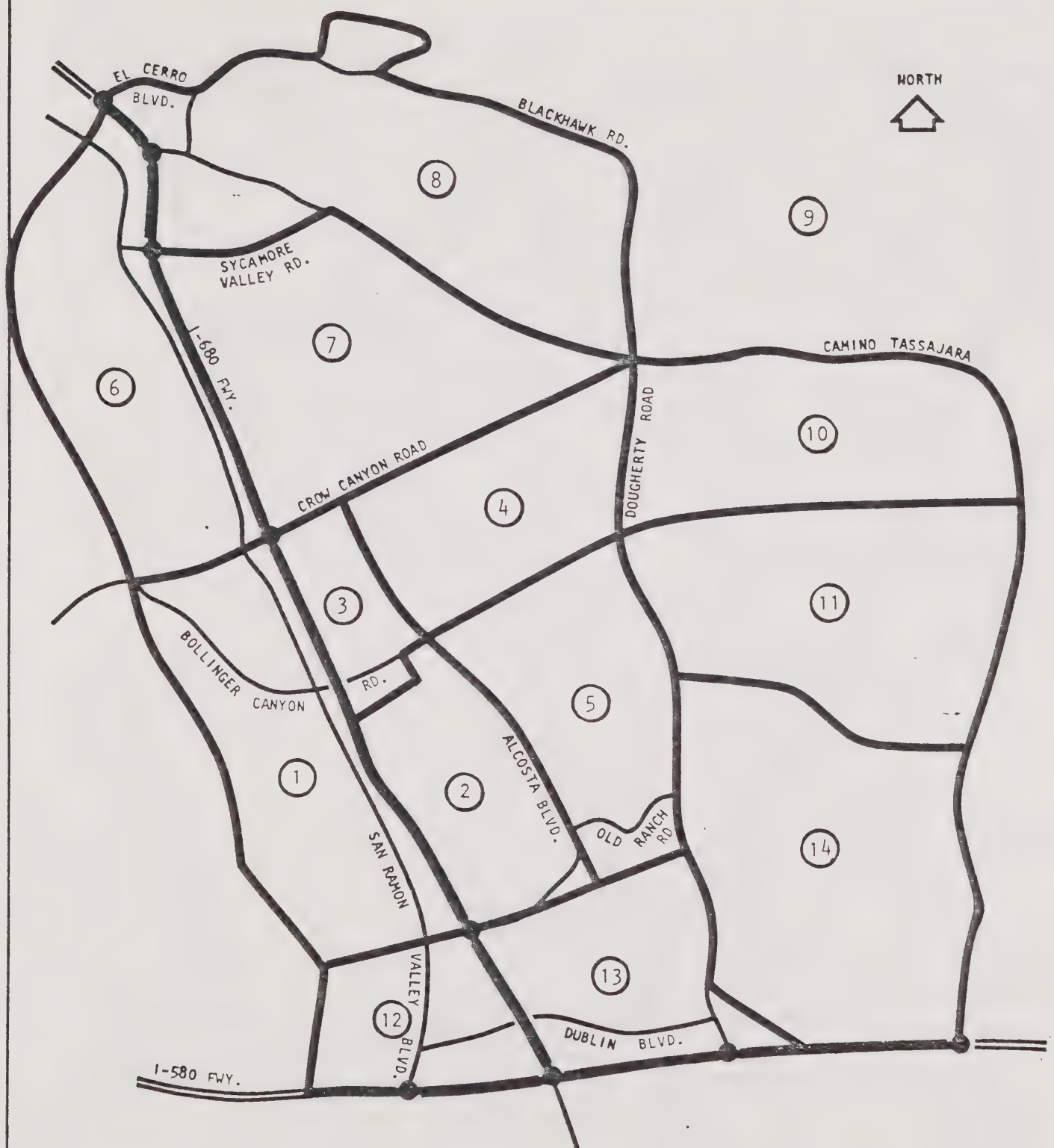
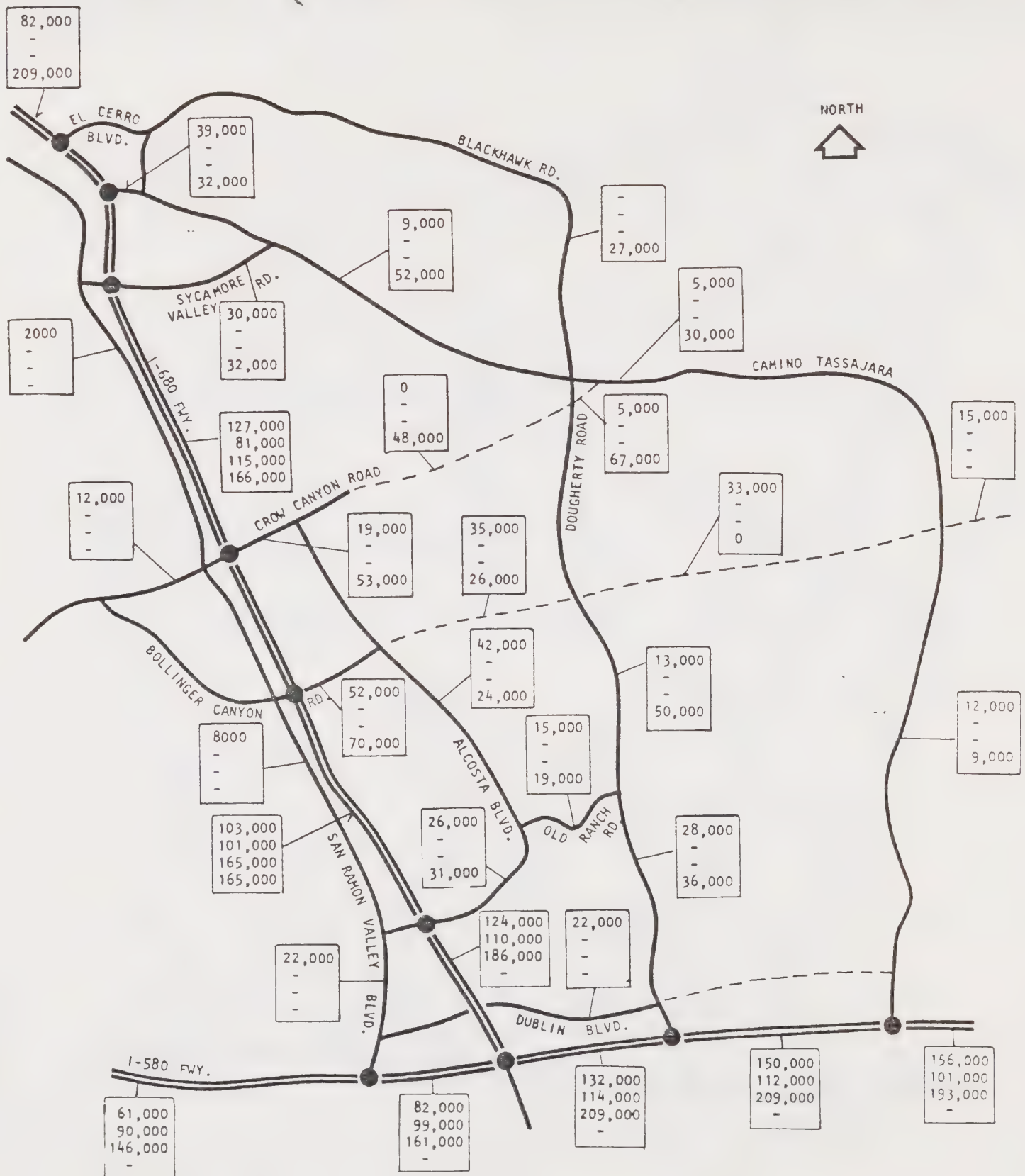


Figure B-15

**DEVELOPMENT ZONES
SAN RAMON SPHERE OF INFLUENCE STUDY**

Source: DKS Associates



Example Source of Projection

127,000	Los Positas Year 2005
81,000	Tri-Valley Scenario 2A (Year 2005)
115,000	Tri-Valley Scenario 2B (buildout)
166,000	Gumpert Ranch (buildout w/o agri. lands, Network B)

Source: DKS Associates

Figure B-16
PROJECTED ADT VOLUMES
SAN RAMON SPHERE OF INFLUENCE STUDY

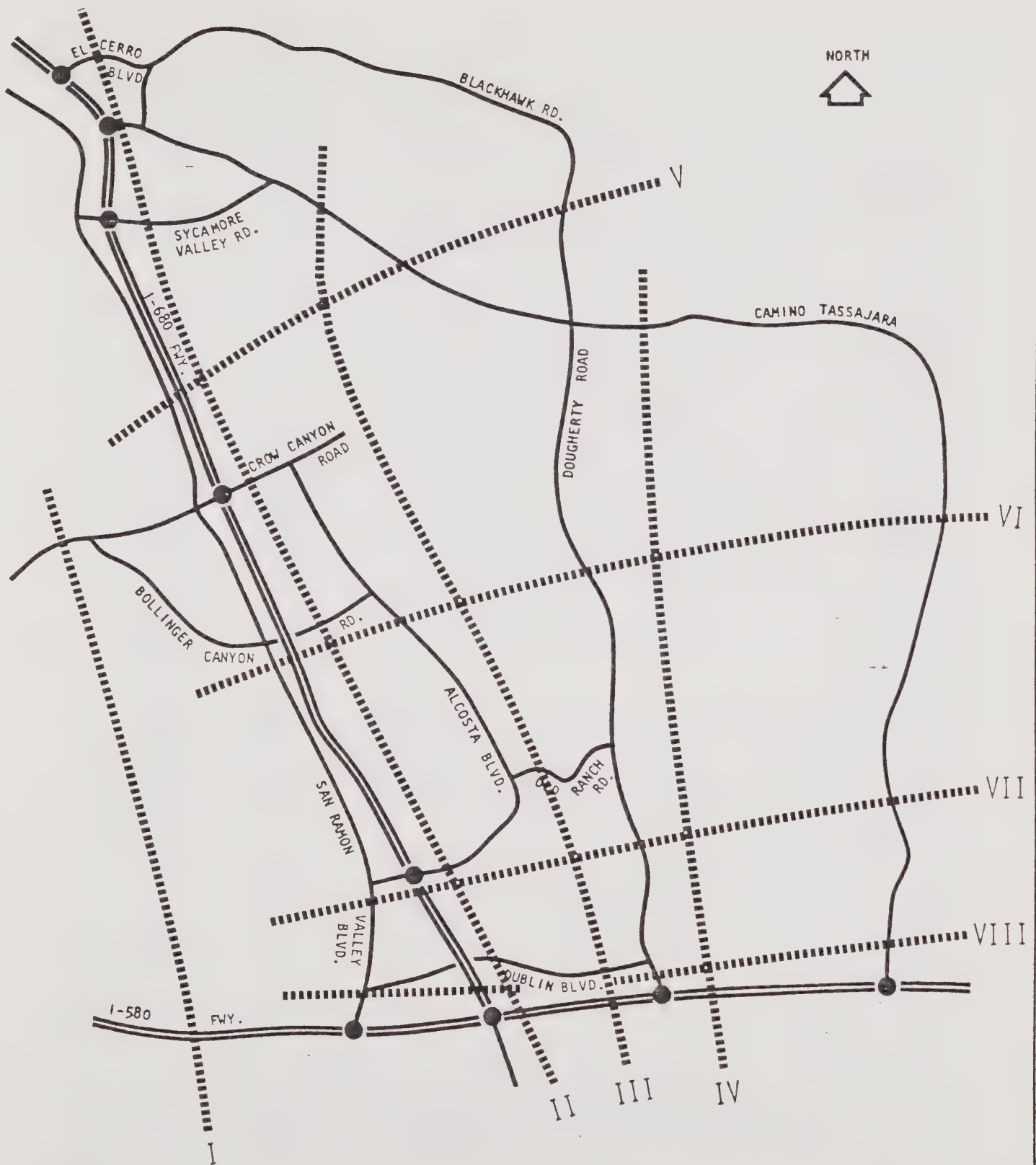


Figure B-17
SCREENLINES
SAN RAMON SPHERE OF INFLUENCE STUDY

Source: DKS Associates

Table B-18

Screenline	NORTH-SOUTH SCREENLINE VOLUMES/CAPACITIES										
	Existing ADT/Capacity				Existing ADT/Improved Roadways			Year 2005*		Build-Out**	
	Number of Lanes	ADT	Capacity LOS "D" (000's)	Reserve Capacity (000's)	Number of Lanes	Capacity LOS "D" (000's)	Reserve Capacity (000's)	ADT (000's)	Reserve Capacity (000's)	ADT (000's)	Reserve Capacity (000's)
I. <u>Dublin Canyon</u>											
Crow Canyon Road	2	15	16	1	4	27	12	n.e.	n.e.	n.e.	n.e.
I-580	8	76	144	68	8	144	68	61	83	146	-2
Total				69			80		83		-2
II. <u>E/I-680</u>											
Diablo	2	8	16	8	6	40	32	39	1	32	8
Sycamore	2	10	16	6	6	40	30	30	10	32	8
Crow Canyon	6	14	40	26	6	40	26	19	21	53	-13
Bollinger	4	-	27	27	6	40	40	52	-12	70	-30
Alcosta	4	8	27	19	6	40	32	26	14	31	9
Dublin	4	27	27	0	4	27	0	22	5	n.e.	n.e.
I-580	8	77	144	67	8	144	67	132	12	209	-65
Total				153			227		51		-83
III. <u>E/Alcosta</u>											
C. Tassajara	2	4	16	12	4	27	23	9	18	52	-25
Crow Canyon	-	-	-	-	6	40	40	0	40	48	-8
Bollinger	-	-	-	-	6	40	40	35	5	26	14
Old Ranch	2	2	16	14	4	27	25	15	12	19	8
Dublin	4	27	27	0	4	27	0	22	5	n.e.	n.e.
I-580	8	77	144	67	8	144	67	132	12	209	-65
Total				93			195		92		-76
IV. <u>E/Dougherty</u>											
C. Tassajara	2	3	11	8	4	27	24	5	22	30	-3
Bollinger	-	-	-	-	6	40	40	33	7	(not in)	-
Dublin	-	-	-	-	6	40	40	n.e.	n.e.	n.e.	n.e.
I-580	8	79	144	65	8	144	65	150	-6	209	-65
Total				73			221		23		-68

* Derived from Las Positas EIR.

** Derived from Gumpert Ranch EIR and from Tri-Valley (Alternative 2B).

n.e. = not estimated.

negative number denotes deficiency.

SOURCE: DKS Associates

Table B-19

EAST-WEST SCREENLINE VOLUMES/CAPACITIES

Screenline	Existing ADT/Capacity				Existing ADT/Improved Roadways			Year 2005*		Build-Out**	
	Number of Lanes	ADT	Capacity LOS "D" (000's)	Reserve Capacity (000's)	Number of Lanes	Capacity LOS "D" (000's)	Reserve Capacity (000's)	ADT (000's)	Reserve Capacity (000's)	ADT (000's)	Reserve Capacity (000's)
V. <u>N/Crow Canyon</u>											
San Ramon	4	11	27	16	4	27	16	2	n.e.	n.e.	n.e.
I-680	6	79	108	29	8	144	65	127	17	166	-22
C. Tassajara	2	4	11	7	4	27	23	9	18	52	-25
Total				52			104		35		-47
VI. <u>S/Bollinger</u>											
San Ramon	4	9	27	18	4	27	18	8	19	n.e.	n.e.
I-680	6	63	108	45	8	144	81	103	41	165	-21
Alcosta	2	6	16	10	4	27	21	42	-15	24	3
Dougherty	2	1	11	10	4	27	26	13	14	50	-23
C. Tassajara	2	1	11	10	4	27	26	12	15	9	18
Total				93			172		74		-23
VII. <u>County Line</u>											
San Ramon	4	18	27	9	4	27	9	22	5	n.e.	n.e.
I-680	6	62	108	46	8	144	82	124	20	186	-42
Dougherty	2	2	11	9	4	27	25	28	-1	36	-9
C. Tassajara	2	1	11	10	4	27	26	12	15	9	18
Total				74			142		39		-33
<u>N/I-580</u>											
San Ramon	6	35	40	5	6	40	5	44	-4	n.e.	n.e.
I-680	6	62	108	46	8	144	82	124	20	186	-42
Dougherty	4	41	27	-14	6	40	-1	38	2	36	4
C. Tassajara	2	1	11	10	4	27	26	12	15	9	18
Total				47			112		33		-20

* Derived from Las Positas EIR.

** Derived from Gumpert Ranch EIR and from Tri-Valley (Alternative 2B).

n.e. = not estimated.
negative number denotes deficiency.

SOURCE: DKS Associates

Freeway Service: Both the I-580 and I-680 freeways are critical elements of the transportation system in the Area of Planning Interest. Widening of I-680 to eight lanes appears from projections made to date to satisfy traffic needs to year 2005, but build-out of proposed and contemplated projects in the area could overload even the widened freeway. Previous projections indicate that I-580 may handle traffic to year 2005, although this depends on which projections are accepted. In any case, it is clear that the existing I-680/I-580 interchange cannot handle the increased mainline volumes anticipated.

Existing Freeway Access Routes: Various improvements to freeway interchanges and access arterials have been proposed, and these are clearly needed under projected traffic levels. In general, arterial road traffic volumes (and hence levels of congestion) increase as the freeways are approached. Particularly affected by traffic increases are Crow Canyon Road and Bollinger Canyon Roads. The excessive volume projected for Bollinger Canyon Road suggests the need to evaluate whether it should provide continuity to the east, its capacity to the east be reduced, or whether traffic from the east should be routed onto other east-west routes (e.g., Alcosta Boulevard). If Alcosta Boulevard were to take more of the traffic, measures would be needed to ensure that the residential frontage segments are not overly impacted. Capacity may be available at Diablo Road and Sycamore Valley Road, but this may require further improvements to Camino Tassajara and provision of better north-south access to these routes. On the south, Dougherty Road is projected to be severely overloaded, while Camino Tassajara may have available capacity. This reinforces the need for an easterly extension of Dublin Boulevard and perhaps additional freeway access from the north. Also, development between Dougherty Road and Camino Tassajara might best be concentrated near Camino Tassajara to help balance traffic loadings.

New Freeway Interchanges: In the I-680 corridor, a new interchange is planned at Bollinger Canyon Road to serve Bishop Ranch. A new I-680 interchange has also been proposed between Alcosta Boulevard and I-580 to improve access to/from Dublin. There is adequate distance between Bollinger Canyon Road and Alcosta Boulevard to permit an additional I-680 freeway interchange, if needed for access in the future. However, right-of-way for the interchange and access route may not be available.

In the I-580 corridor, a new interchange has been proposed at Hacienda Drive (between Dougherty Road and Camino Tassajara. Although not currently planned, there may be an opportunity to develop an additional freeway access route extending north from the proposed Hacienda Drive interchange.

SP Right-of-Way Uses: The Southern Pacific right-of-way has been proposed for use as a public transportation corridor. An Alternatives Analysis/EIS is planned by Contra Costa County within the next two years to study alternative uses. Transportation uses could include roadways, a busway, light rail transit or BART. Walnut Creek, for example, plans to construct a two-lane roadway and make provisions for transit services and a bikeway within its segment.

Within San Ramon, a north-south roadway, even if only two lanes wide, could improve local auto circulation and off-load Alcosta Boulevard and Broadmoor Drive. A key concern about use of the right-of-way for corridor transit service or a major roadway is its potential for dividing communities and impacting adjacent properties. Careful design might mitigate some of the impacts.

Community input to date shows a variety of local viewpoints -- e.g., those favoring major transit service in the corridor; those favoring purchase of the corridor but with no pre-conceptions on its ultimate use; and those favoring its use for linear parks or other non-transportation uses. Extensive further community input is needed over the next few years before a course of action is selected.

Transit Service: Availability of the SP right-of-way has focused attention on development of a trunk line transit route through the San Ramon Valley. If transit service is not acceptable within this corridor, the I-680 corridor could be considered (similar to how BART is proposed to run in the I-580 corridor). Either trunk line route would be served with park-and-ride stations and feeder bus service. Consideration could be given to extending the trunk line all the way south to tie in with the proposed BART station at I-580.

Trunk line transit service would alleviate some traffic congestion on I-680, but would do little for east-west circulation which is also critical. A separate east-west transit corridor could be considered. Alternatively, if the trunk route utilizes buses, they could branch off the corridor into individual residential and/or employment areas to the east and west.

Bollinger Canyon Road Extension: A key issue is whether to extend Bollinger Canyon Road east of Alcosta Boulevard and, if so, how far and with how many lanes. Extension of Bollinger Canyon Road to the east would conflict with an agreement between the Kaplan-Wiedemann project developers and the Sierra Club; however, Contra Costa County could extend Bollinger Canyon Road since it was not a party to the agreement (Source: Gumpert Ranch DEIR).

The Gumpert Ranch EIR projected overloading of Bollinger Canyon Road east of I-680, even with widening to ten lanes and no service to Gumpert Ranch. The worst case scenario (easterly extension of Bollinger Canyon Road and build-out of adjacent agricultural lands) was projected to need the equivalent of an eight lane freeway. The Las Positas EIR also projected heavy traffic volumes on Bollinger Canyon Road, but levels that could be handled with an eight lane arterial. These lower projections looked only to year 2005, but did assume extension of Bollinger Canyon Road all the way east to Camino Tassajara for access to Las Positas.

Hence, the conclusions to be reached on the extension of Bollinger Canyon Road are highly dependent on which projections are valid, as well as on the time frame considered.

Alcosta Boulevard: Projected needs are for widening Alcosta Boulevard to four to six lanes both north and south of Old Ranch Road. Under one network alternative analyzed by the Gumpert Ranch DEIR, even a six-lane width south of Old Ranch Road would be inadequate. Issues here are how to address traffic capacity needs given the closely fronting residences along some portions, and also whether the I-680 interchange can accept the projected traffic increases. A new I-680 interchange in Dublin would divert some Dublin traffic from Alcosta Boulevard. Broadmoor Drive is an alternative north-south route but is not desirable for increased traffic because of the residential frontage. The SP right-of-way is perhaps another candidate route for north-south circulation within San Ramon. Re-orienting Alcosta Boulevard towards the east to Dougherty Road (i.e., making Alcosta Boulevard/Old Ranch Road a continuous route) could perhaps reduce traffic on the north-south portion of Alcosta Boulevard.

Montevideo Road Extension: The issues here are whether Montevideo Road should be extended easterly to provide additional east-west circulation, and whether to widen and improve the existing roadway. Furthermore, it is far enough from Bollinger Canyon Road to be a candidate location for an additional I-680 interchange, if necessary.

Broadmoor Drive Extension: The issues here are whether to extend Broadmoor Drive north of Crow Canyon Road, and how to protect existing fronting residences from intrusion by non-local traffic.

Bikeway System: There is a need to define the appropriate role for bicycling in the overall circulation system and to establish an overall system of bikeways. There may be opportunity for incorporating a bike trail in the SP corridor, as being planned by the City of Walnut Creek. Crossings of I-680 are another critical issue in bikeway planning.

Use of Traffic Projections: The traffic forecasts reported above were derived from recent studies that projected travel needs within the overall traffic shed. These projections must be used with caution, however. Their underlying assumptions, methodologies and results vary substantially in some instances. None of the studies focused on the San Ramon area and, hence, may not be adequately validated there. They do, nevertheless, agree in terms of the need for major roadway improvements to serve growth in the traffic shed. Although helpful in preliminarily identifying circulation needs and issues, the travel projections were refined for subsequent transportation analysis in the Sphere of Influence Study, as described in Appendix C. Still further refinement will be necessary for circulation system planning once the Sphere of Influence is established.

5. Public Service Issues

The following discussion summarizes public service capacity issues within the Detailed Study Area (DSA).

a. School Facilities

Services Provided School facilities within the majority of the DSA are provided by the San Ramon Valley Unified School District (SRVUSD). The Amador Valley High School District and the Pleasanton Elementary School District jurisdictions include a small area in the southeast portion of the DSA. These districts provide elementary, intermediate, and high school education and community facilities.

Capacity Issues SRVUSD is, under the terms of Senate Bill 201, an impacted school district. This designation enables the District to collect impact (or development) fees from new residential development within SRVUSD. These impact fees, which are used to finance interim elementary facilities, total \$400 per bedroom after the first bedroom, up to a maximum of \$1,200 per dwelling unit. Additional elementary facilities required by development in the DSA would be financed with these fees, and District staff has indicated that elementary financing will not be a problem. A similar financing mechanism for intermediate and high school facilities does not exist.

b. Sheriff Protection

Services Provided The Contra Costa County Sheriff's Department provides police protection to all portions of the detailed study area. The Department's current service level in the unincorporated area is one officer in the field per 1,000 residents.

Capacity Issues Sheriff's Department staff has indicated that development within the Detailed Study Area would be served by additional personnel, which would be added according to the current service standard ratio. The only constraint to additional service would be the financing of additional capital facilities.

c. Fire Protection

Services Provided The Detailed Study Area is served by the San Ramon Valley Fire Protection District (SRVFPD), the Dublin San Ramon Services District (DSRSD), and the Tassajara County Fire District. SRVFPD and DSRSD both provide fire protection, fire suppression, and emergency medical services, while the Tassajara District is a volunteer service provider that primarily suppresses wildland fires.

Capacity Issues Limited additional development in the Detailed Study Area, including the proposed Canyon Lakes project, could be accommodated with existing SRVFPD facilities and personnel. SRVFPD also plans to add a fire station near the intersection of Blackhawk and Tassajara Roads. This station, which should be on-line in 1984/85, could serve some additional development in the northeastern portion of the DSA. However, major development activity on the Gale and Gumpert Ranch properties would require another fire station, or activation of the Tassajara facility to twenty-four hour service.

DSRSD staff has also indicated that the eastern portion of the Detailed Study Area would constitute a logical area of DSRSD fire service extension. Again, large-scale development on the Gale and Gumpert Ranch properties would require additional fire capital improvements. DSRSD collects a \$600 per dwelling unit Capital Fire Fee from all new development within the District. The DSRSD staff feels that this mechanism would be utilized to finance new facilities in the DSA. The San Ramon Valley Fire Protection District does not have a similar financing method, and the provision of new facilities may therefore be more difficult.

d. Water Treatment, Transmission, and Storage

Services Provided The East Bay Municipal Utility District (EBMUD) provides water service to all annexed service areas within San Ramon's Area of Planning Interest.

Capacity Issues Water provision to nearly all portions of the Detailed Study Area is more of a financial problem than a physical (i.e. capacity) problem. The DSA has virtually no surface water infrastructure, and extensions of existing lines to enable formation of new pressure zones will be expensive.

Major development within the DSA will require new water mains, pumping stations, and reservoirs. These facilities are particularly costly in areas with topographical characteristics similar to the Detailed Study Area. EBMUD presently finances new facilities primarily with development fees and, in limited cases, bond financing.

e. Sewage Transmission, Treatment, and Disposal

Services Provided Sanitary sewage facilities within the Detailed Study Area would be provided by the Central Contra Costa Sanitary District (CCCSD) and the Dublin San Ramon Services District (DSRSD). CCCSD operates a treatment plant in Pacheco, and DSRSD's treatment facility is located in Pleasanton. Both Districts discourage the use of pumping stations and the construction of "stand-alone" treatment facilities.

Capacity Issues Provision of sanitary sewer facilities in the DSA will be quite costly, and significant capacity constraints will have to be resolved before any major development can take place. CCCSD's treatment and transmission facilities are nearing capacity, and planned expansion of facilities may allow only limited additional service extension in the DSA. Because of gravity flow limitations, it is unlikely that CCCSD will serve development on the Gale or Gumpert properties.

DSRSD has the potential of providing sanitary service to many portions of the DSA. The primary constraint to service will be disposal of effluent after treatment at the Pleasanton treatment plant. DSRSD, along with the City of Livermore and the City of Pleasanton, dispose of effluent through the Livermore/Amador Valley Water Management Agency (LAVWMA) pipeline.

LAVWMA is responsible for transporting effluent from the Pleasanton (and Livermore) treatment facilities through the Dublin Canyon for eventual discharge into San Francisco Bay. In the absence of a new pipeline parallel to the existing LAVWMA line, or the implementation of an alternative disposal method, only a very limited amount of development planned within the DSA could be accommodated by DSRSD.

C. Description and Analysis of Alternative Sphere of Influence Boundaries

I. Definition of Alternative Boundaries

Figure C-1 depicts the boundary alternatives, which are discussed below. The reasons for each boundary are included within the descriptions. The four alternatives describe the range of choice within the detailed study area and illustrate how application of differing criteria affect selection of a recommended sphere.

a. Sphere A (Traffic Zones 1-5)

West of the present city boundaries, this sphere extends to the Alameda County line, East Bay Regional Park District lands, the crest of Las Trampas Ridge, and an east-west line that is a westward extension of the present common boundary between San Ramon and Danville. All of this territory is clearly tributary to the City of San Ramon, although much is too steep for urban development.

East of the present city, Sphere A adjoins Danville on the north and includes Bishop Ranch Business Park, Canyon Lakes (Kaplan-Wiedemann property), and the portion of the Gale Ranch (Shapell) that is within the East Bay Municipal Utilities District water service area. Although there is no commitment for sewer service to the Shapell portion, the remaining parcels in this eastern sphere extension are under development or have sewer and water service commitments. Urban development is consistent with the San Ramon Valley General Plan.

Sphere A is the minimum logical sphere for San Ramon. All portions to be urbanized will require full urban services and would efficiently be served only by San Ramon.

Total area: 13,800 acres; 21.6 square miles.

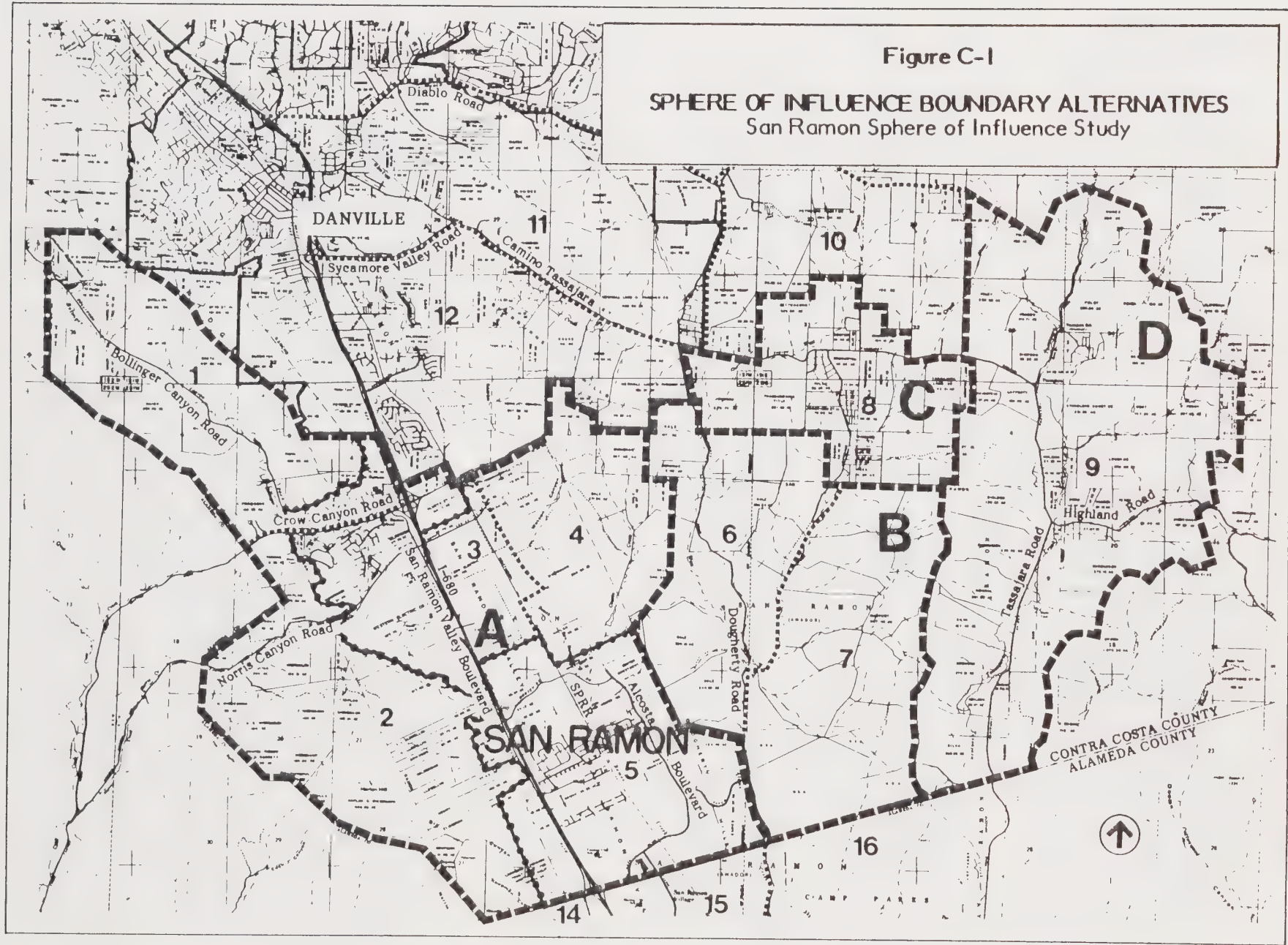
b. Sphere B (Traffic Zones 1-7)

This sphere includes all of Sphere A plus the Dougherty Valley and pending General Plan amendment applications for West Branch and the Gumpert Ranch. The southern boundary is along the Alameda County line, but a probable annexation boundary would be the edge of Camp Parks, a mile north, if this property is retained for military use. The northerly boundary is formed in part by the south edge of the Dougherty Road project (pending General Plan amendment application) which fronts on Camino Tassajara. Further east the boundary is mainly along the north boundary of the Gumpert Ranch where it adjoins ranchettes having access from Lawrence Road. The east boundary is the east boundary of the Gumpert Ranch which falls along a ridge 200 to 400 feet above Camino Tassajara. This ridge forms a barrier to a high-capacity eastward extension of Bollinger Road even if capacity to serve additional development were available at the point of connection to I-680. Both water and sewer service commitments are lacking in TZs 6 and 7, but the natural southward drainage indicates that sewer service by the Dublin San Ramon Services District would be logical.

Sphere B encompasses all of the land suitable for urban development that falls within

Figure C-1

SPHERE OF INFLUENCE BOUNDARY ALTERNATIVES
San Ramon Sphere of Influence Study



2. Land Use Assumptions

a. Residential Density Assumptions

Potential residential densities must be assumed as a basis for traffic and urban services analyses, but there is no intent to make density recommendations as part of the sphere study. The unsubdivided land within each alternative sphere studied is assumed ultimately to be subject to urban or ranchette development if it is less than 25 percent slope. Undeveloped portions of the potential sphere are expected to have primarily residential development with jobs only at neighborhood shopping centers and schools. Variations in assumptions about employment would affect traffic capacity demand less than variations in residential density assumptions unless a large business park were proposed in the Dougherty Valley.

The present City of San Ramon has 1.8 dwelling units per gross acre, but includes substantial land area that is vacant or in commercial, industrial, or freeway use. In contrast, the seven major development projects currently seeking approval (see Table C-1) would average 4.3 units per gross acre (6.6 units per acre on land less than 25 percent slope) if the maximum proposed densities are realized. The proposed density range for land under 25 percent is 0.95 (Rocky Ridge) to 8.97 units per acre (Gumpert Ranch). To illustrate the bounds of a probable range of urban densities likely on the remaining large parcels, the assumptions in Table C-2 are used. Table C-3 shows the theoretical capacity at buildout.

b. Dwelling Type Assumptions

The 1980 housing stock in San Ramon was about 80 percent single family and 20 percent multi-family. Current major development proposals in the detailed study area have very large multi-family shares (Gumpert Ranch - 89 percent, West Branch - 81 percent, Canyon Lakes - 80 percent). These allocations are consistent with efforts to broaden the market while preserving steeper slopes as open space. The jurisdiction that regulates development must make density decisions that will be primary determinants of housing prices, the rate of development and population holding capacity. The Sphere Study must incorporate assumptions about dwelling types because demands for public services differ by type. There is considerable leeway for increasing the share of multi-family units in projects with low overall densities, but little opportunity to enlarge the single family share in higher density projects. Based in part on project proposals, the assumption for uncommitted land for the high density alternative is 80 percent multi-family and 20 percent single family, while for the low density alternative the reverse is assumed (20 percent multi-family; 80 percent single family).

the trafficshed of I-680 in San Ramon. Residents of this sphere will naturally shop in San Ramon, many will work there, and all would readily identify themselves as San Ramon residents. If all of Sphere B were annexed (with the possible exception of the area to remain undeveloped west of the present San Ramon boundary), San Ramon would be a compact city measuring about 6 miles east-west by 4.9 miles north-south, with a reasonably regular boundary. Although development of the Gale (Shapell) and Gumpert properties may be ten or more years away, the size of these holdings will attract large developers and result in development at the highest density permitted at the quickest pace the market will sustain.

The only apparent logical alternative to inclusion of Sphere B in San Ramon would be formation of a separate city or special district providing full urban services.

Total area: 19,300 acres; 30.2 square miles.

c. Sphere C (Traffic Zones 1-8)

This sphere would add to Sphere B the Dougherty Road General Plan Amendment (GPA) area, the Edmonston Ranch GPA area (Hansen Lane), the ranchettes on Lawrence Road, and the Bettencourt property on the north side of Camino Tassajara abutting Blackhawk. It would adjoin the current boundaries of the Contra Costa County Central Sanitary District (CCCSD) and EBMUD. However, sewage from much of the area south of Camino Tassajara would have to be pumped into CCCSD mains contrary to current district policy.

Because this area borders Camino Tassajara it has identity with Danville, although extension of Crow Canyon Road and improvement of Dougherty Road will connect it to San Ramon. The Lawrence Road ranchettes may not require full urban services and owners may prefer to remain unincorporated. While this area could be served by San Ramon, the urban portions more logically fall in the Danville sphere.

Total area: 21,500 acres; 33.6 square miles.

d. Sphere D (Traffic Zones 1-9)

This largest potential sphere of influence includes all of the detailed study area and extends to the first ridges north and east of Camino Tassajara east of Sphere C. Much of the developable land along Finley Road, Johnston Road, and Highland Road has been subdivided as ranchettes.

Urban density development in Sphere D is not likely within the next ten to twenty years and may not occur even when developable land to the west is built out because the ranchette pattern has a foothold. If urban density development were approved, it would not have a strong tie to San Ramon because the topography allows no major access routes other than Camino Tassajara which is oriented to Alameda County or to Danville.

If Sphere D were to be developed at urban intensity, it probably should be served by the same entity as would serve the Highland School area along Highland Road to the east. The Highland School area is oriented to the proposed Las Positas new town in Alameda County and to Livermore.

Total area: 28,600 acres; 44.7 square miles.

TABLE C-2
DEVELOPMENT PROPOSALS IN DETAILED STUDY AREA
San Ramon Sphere of Influence Study

<u>Project</u>	<u>Gross Acres</u>	<u>Dwelling Units Proposed</u>	<u>Gross Density</u>	<u>Status^a</u>
Rocky Ridge	197	118	.6	Hearing held in January
Shapell (Alcosta)	90	1,100	12.2	GPA approved
Shapell (West Branch)	400	1,350	3.4	EIR certified, GPA pending
Gumpert Ranch	2,319	9,196	4.0	EIR certified, GPA postponed indefinitely
Dougherty Road	461	2,444	5.3	EIR certified, GPA pending
Edmonston Ranch	239	480	2.0	EIR certified, GPA pending
Blackhawk (Canyon Lakes)	<u>1,080</u>	<u>3,100</u>	<u>2.9</u>	GPA approved, project EIR hearing scheduled May 2, 1984
TOTAL	4,786	17,788	4.3 (average)	

^aContra Costa County Planning Department, April 27, 1984

TABLE C-3

TRIAL RESIDENTIAL DENSITY ASSUMPTIONS
(Not Constrained by Traffic Capacities)
San Ramon Sphere of Influence Study

	<u>Low Density</u>	<u>High Density</u>
Existing City:	800 Units	1,300 units
Proposed Projects:	As proposed, or 2 units per gross acre under 25% slope, whichever is lower. Exception: Canyon Lakes is included as proposed (4.2 units per ac. under 25%)	As proposed
Uncommitted Land (does not include ranchettes)	2 units per gross acre less than 25 % slope	8 units per gross acre less than 25 % slope

Source: Assumptions for existing city from Contra Costa County Planning Department; other assumptions by Blayney-Dyett.

The high density average is intended to illustrate development potential that would exist if the more intense current proposals set the standard. The low density approximates what would result from application of Contra Costa County R-10 zoning (10,000 square feet minimum single family dwelling lot size) and the County's unadopted slope density policy that allows about two lots per net acre on 20 percent slopes. Allowable densities up to 4.4 units per net acre on slopes under 15 percent would be cut by deduction of land for streets, schools, and a limited amount of non-residential development, resulting in an average of about two units per gross acre for all land under 25 percent slope. The density range used for the Sphere Study as shown in Table C-3 is intentionally wide and should be viewed as illustrative.

TABLE C-4

THEORETICAL HOUSING UNITS BY TRAFFIC ZONE
UNDER TRIAL DENSITY ASSUMPTIONS
(Not Constrained by Traffic Capacities)
San Ramon Sphere of Influence Study

<u>Traffic Zone</u>	City of San Ramon <u>Existing</u>	Proposed Projects		Uncommitted Land under 25% slope		Totals (rounded)	
		<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
1	—	118	118	227	138	300	300
2	2,700	—	—	4,260	1,276	7,000	4,000
4	404	4,200	3,280	4,048	1,012	8,700	4,700
5	6,030	—	—	725	445	6,800	6,500
Sphere A Total	9,134	4,318	3,398	9,260	2,871	22,800	15,500
6	—	1,350	800	6,992	1,748	8,300	2,500
7	—	9,196	4,638	—	—	9,200	4,600
Sphere B Total	—	14,864	8,836	16,252	4,619	40,300	22,600
8	—	2,924	1,402	1,328	332	4,300	1,700
Sphere C Total	—	17,788	10,238	17,580	4,951	44,600	24,300
9	—	—	—	16,880	4,220	16,900	4,200
Sphere D Total	—	17,788	10,238	34,460	9,171	61,500	28,500

Assumptions:

Buildout of existing City of San Ramon from Contra Costa County Planning Department data. Proposed projects to be built as proposed for "high" and at 2 units per acre under 25% slope for "low," except Canyon Lakes which is included at 4.2 units per acre as proposed for both. Uncommitted land is at 8 units per acre for "high" and 2 units per acre for "low." Ranchettes are retained with no density increase.

c. Feasible Dwelling Unit Holding Capacity

The theoretical holding capacity of 28,500 to 61,500 units is not practically attainable within the limits of the trafficways improvements judged feasible. The existing city will have 9,500 to 10,000 units at buildout, leaving 19,000 to 51,500 units (from Table C-3) to be built outside the present city, mainly to the east. However, the transportation studies show that no more than 16,000 units can be added east of an Alcosta Boulevard screenline. Consequently, the following assumptions were used to allocate the maximum feasible development to traffic zones (TZ) 4 through 10.

To apportion 16,000 dwelling units (DU's) in TZ's 4, 5 (East of Alcosta), 6, 7, 8, 9, and 10, likely densities were assumed for each TZ as described below.

- Zone 4. 400 existing units within city. Canyon Lakes (3,100 units) and Shappell Alcosta (1,100 units) as proposed; 220 ac. 0-15% slope @ 4/ac; 286 ac. 15-25% slope @ 2/ac. Total: 6,000 units.
- Zone 5. 200 acres E of Dougherty Hills @ 2/ac. Total: 400 units.
- Zone 6. West Branch 300 ac. @ 2/ac (vs. 1,200 - 1,300 proposed); 621 ac. 0-15% @ 3/ac.; 253 ac. 15-25% @ 1/ac. Total: 2,700.
- Zone 7. Gumpert Ranch, 2,300 ac. Assume 1,150 ac @ 2/ac.; 1,150 @ 1/ac. Total: 3,500. (Sponsor's proposal includes 6,700 to 9,200 units).
- Zone 8. Edmonston Ranch, 300 (vs. 480 proposed); Dougherty Road, 500 (vs. 1,500-2,400 proposed and 240 permitted under existing plan); 276 ac. 0-15% @ 2/ac.; 126 ac 15-25% @ 1/ac. Total 1,500. Somewhat lower densities assumed outside proposed San Ramon Sphere than within.
- Zone 9. No urban development. Total: 300 ranchettes.
- Zone 10. 1,500 units projected in Blackhawk.

Total 16,000 units

TZ 4 will be about 80% multi-family units (MF); Assume TZs 6 and 7 @ 25% MF; 8 @ 20% MF; 5, 9, 10 at 100% SF.

Table C-5 summarizes land use assumptions resulting from the apportionment of dwelling units.

Table C-5

LAND USE ASSUMPTIONS FOR THE ALTERNATIVES
San Ramon Sphere of Influence Study

	TAZ 1	TAZ 2	TAZ 3	TAZ 4	SPHERE A		TAZ 6	SPHERE B		TAZ 8	SPHERE C	SPHERE D		TRAFFIC USE ONLY	TRAFFIC USE ONLY
	TAZ 1	TAZ 2	TAZ 3	TAZ 4	TAZ 5	SUBTOTAL	TAZ 6	TAZ 7	SUBTOTAL	TAZ 8	SUBTOTAL	TAZ 9	SUBTOTAL	TAZ 10	TOTAL
Existing DUs (City of San Ramon)	0	2,700	0	400	6,000	9,100	0	0	9,100	0	9,100	0	9,100	0	9,100
Incremental dwelling units	300	2,300	0	5,600	400	8,600	2,700	3,500	14,800	1,500	16,300	300	16,600	1,500	18,100
Multi-family share	.25	.25		.80	.00		.25	.25		.20		.00	0	.00	
Multi-family dwelling units	80	580	0	4,480	0	5,130	680	880	6,680	300	6,980	0	6,980	0	6,980
Multi-family population (2.0/DU)	150	1,150	0	8,960	0	10,260	1,350	1,750	13,360	600	13,960	0	13,960	0	13,960
Single-family share	.75	.75		.20	1.00		.75	.75		.80		1.00		1.00	
Single-family dwelling units	230	1,730	0	1,120	400	3,480	2,030	2,630	8,140	1,200	9,340	300	9,640	1,500	11,140
Single-family population (3.2/DU)	720	5,520	0	3,580	1,280	11,100	6,500	8,420	25,980	3,840	29,820	960	30,780	4,800	35,580
Total incremental population	870	6,670	0	12,540	1,280	21,360	7,850	10,170	39,340	4,440	43,780	960	44,740	4,800	49,540
Existing City of San Ramon pop.	0	7,500	0	1,110	16,680	25,300	0	0	25,300	0	25,300	0	25,300	0	25,300
Total buildout population (Existing + increment)	870	14,170	0	13,650	17,960	46,660	7,850	10,170	64,640	4,440	69,080	960	70,040	4,800	74,840
NON-RESIDENTIAL USES															
Office (Added, in 000 Sq. Ft.) (1,561,000 Existing)	610	320	8,000	60	80	9,070	0	0	9,070	0	9,070	0	9,070	0	9,070
Industrial (Added, in 000 Sq. Ft.) (997,000 Existing)	390	200	400	40	50	1,120	0	0	1,120	0	1,120	0	1,120	0	1,120
Retail (Added, in 000 Sq. Ft.) (934,000 Existing)	70	40	80	10	10	210	80	120	410	80	490	0	490	0	490

NOTES: (1) TAZ = Traffic Analysis Zone

Source: San Ramon Sphere of Influence Study Team

3. Comparison -- Transportation Issues

a. Overview of Circulation Alternatives

Conceptual circulation alternatives were formulated for each alternative sphere of influence, and are described below. The purpose of these alternatives is to identify the general implications on roadway requirements and associated costs and feasibility of each sphere of influence alternative. Once a sphere is adopted, more rigorous analysis will be needed to formulate a recommended circulation plan for the area.

Utilizing the information developed in Appendix B, Section 4, two distinct circulation schemes were formulated for the Area of Planning Interest/Traffic Shed, and are described below.

b. Transportation Alternative A

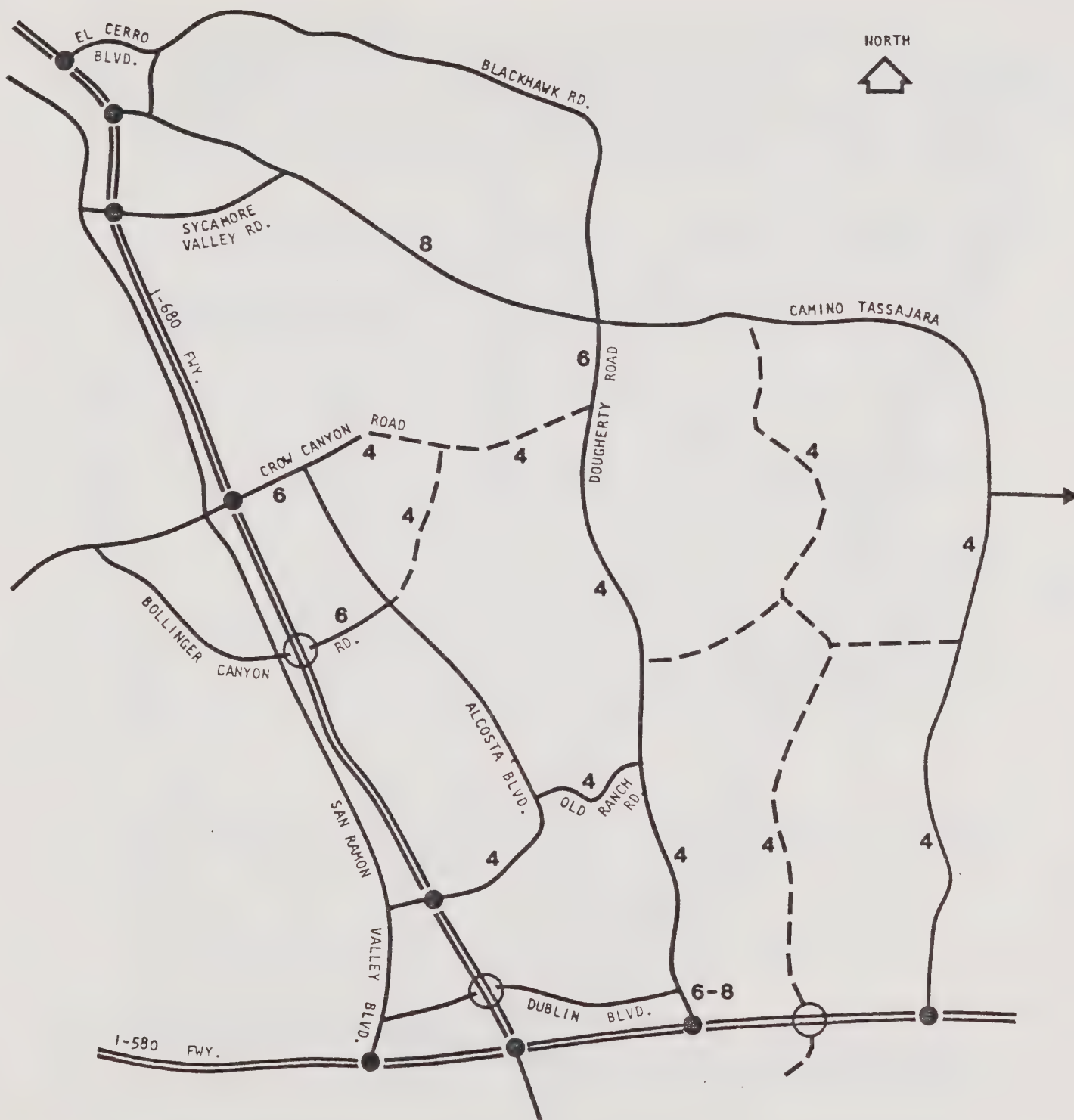
This circulation alternative (Figure C-6) is designed to serve Sphere of Influence Alternative A. Essentially it recognizes the potential east-west traffic overloads associated with serving residential development east of the existing City limits. In this alternative, Bollinger Canyon Road would not extend to Dougherty Road; instead it would extend east across Alcosta Boulevard and then turn to the north to intersect Crow Canyon Road. Crow Canyon Road would extend east, terminating at Dougherty Road. Crow Canyon Road and Old Ranch Road would be the only routes into San Ramon from the east, and each would be widened to no more than four lanes west of Dougherty Road so as to avoid traffic overloads to the west where volumes are higher. With increased east-west traffic on Alcosta Boulevard, a new I-680 interchange in Dublin would be highly desirable to reduce Dublin traffic on Alcosta Boulevard.

A fundamental premise of this alternative is that traffic generated by any development east of Dougherty Road (including, for example, Gumpert Ranch) would be served in a north-south orientation. To the north, Camino Tassajara would be the primary freeway access route; Crow Canyon Road would take some thru-traffic but would be strictly limited by the four-lane section west of Dougherty Road. To the south, Dougherty Road and Camino Tassajara would provide access to I-580 and to employment centers in Pleasanton and Livermore. There may also be need and opportunity for developing a third north-south freeway access route into the Gumpert Ranch area midway between Dougherty Road and Camino Tassajara. This could possibly tie into the planned Hacienda Drive interchange at I-580.

This alternative is clearly tied to a narrowly defined Sphere of Influence for San Ramon (i.e., Alternative A) as it minimizes traffic service through San Ramon to residential areas to the east and assumes that such development would be served instead by alternative north-south arterials.

c. Transportation Alternative B/C/D

This circulation alternative (Figure C-7) is designed to serve City Spheres of Influence extending to the east of Dougherty Road (Alternatives B, C, D). It increases east-west capacity as much as possible by means of extending and widening both Crow Canyon Road and Bollinger Canyon Road.



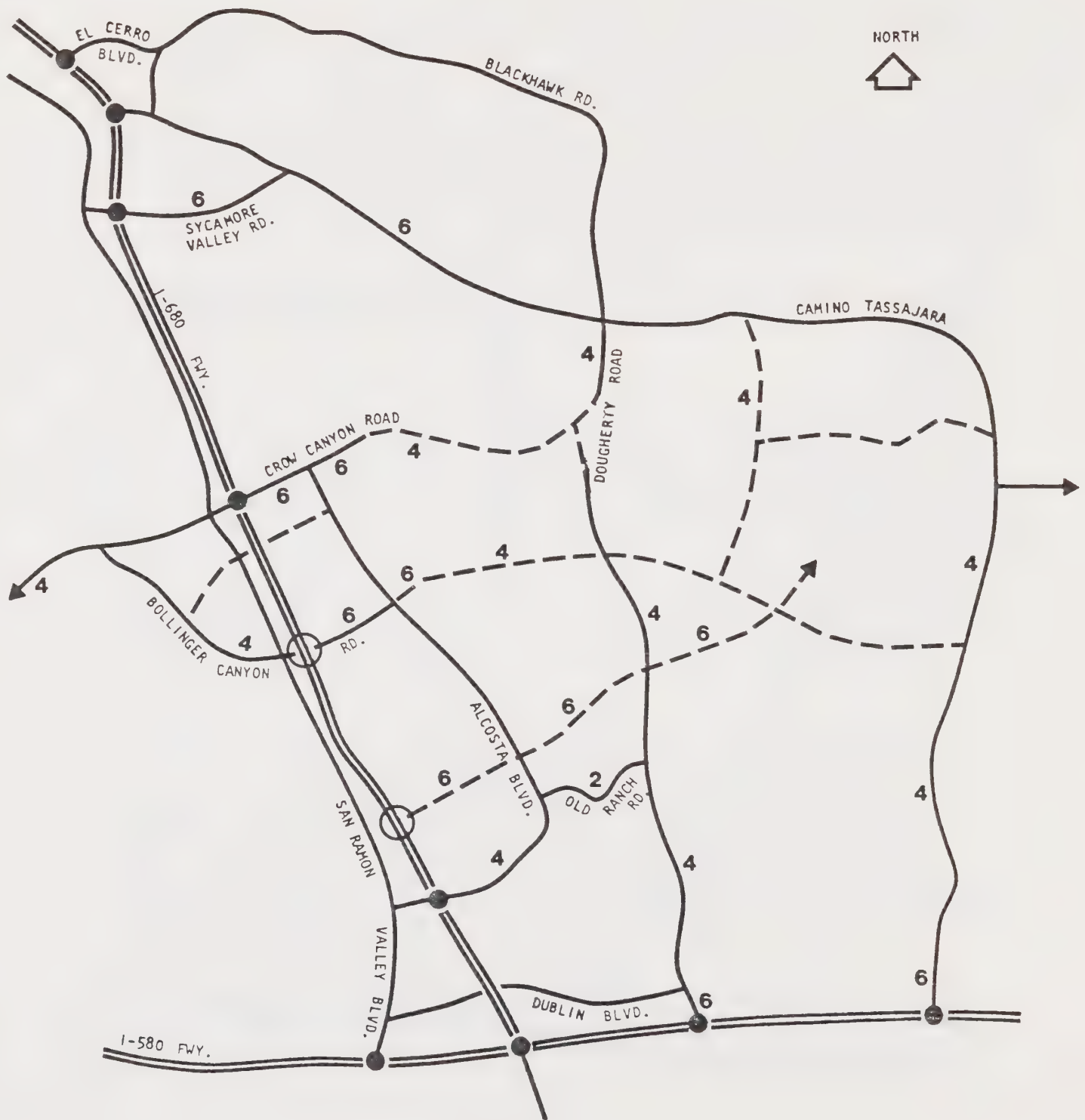
- Future interchange
- 4 Future thru lanes (total of both directions)

Note: Route alignments are conceptual only.

Figure C-6

**TRANSPORTATION ALTERNATIVE A
SAN RAMON SPHERE OF INFLUENCE STUDY**

Source: DKS Associates



- Future interchange
- 4 Future thru lanes (total of both directions)

Note: Route alignments are conceptual only.

Figure C-7

**TRANSPORTATION ALTERNATIVE B/C/D
SAN RAMON SPHERE OF INFLUENCE STUDY**

Source: DKS Associates

Bollinger Canyon Road would extend east all the way to Camino Tassajara. However, existing terrain between Dougherty Road and Camino Tassajara makes it unlikely that Bollinger Canyon Road could be a high-grade facility in this section. A direct connection to existing Highland Road for access to the proposed Las Positas development would be desirable but does not appear feasible due to terrain; instead, Bollinger Canyon Road would intersect Camino Tassajara south of Highland Road, introducing a jog into the through-route.

If necessary for capacity, a new I-680 interchange and east-west freeway access route would be constructed south of Bollinger Canyon Road; the assumed location for this is an existing utility right-of-way just north of Pine Valley Road. With this new access route, Old Ranch Road would be retained at two lanes. The new route could extend east all the way to Camino Tassajara, intersecting it some distance south of Highland Road.

Transportation Alternative B/C/D does not necessarily depend upon a new I-680 interchange in Dublin to minimize traffic increases on Alcosta Boulevard.

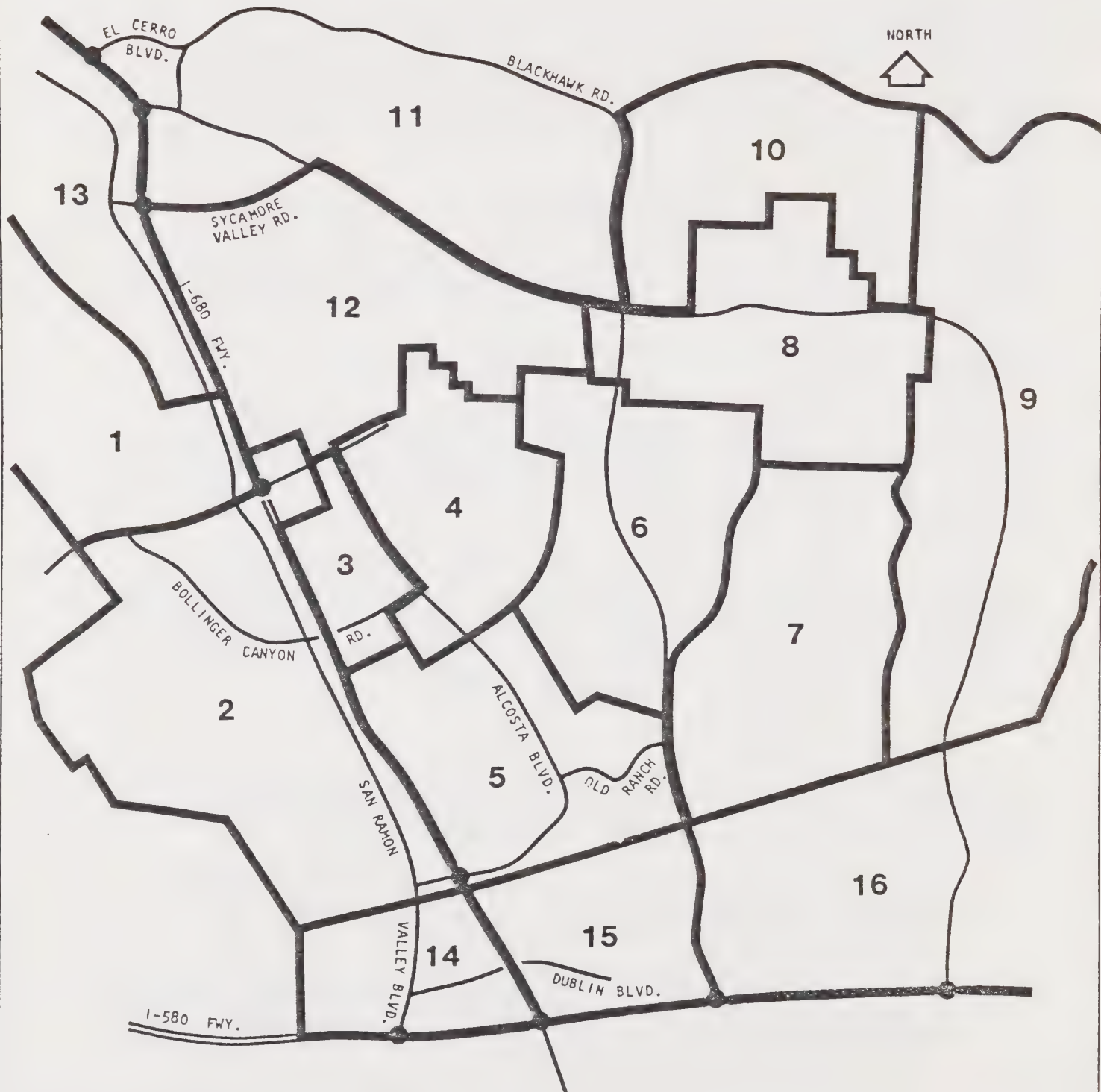
This alternative also provides for north-south traffic service but de-emphasises it relative to the other circulation alternative. Dougherty Road would tee into Crow Canyon Road on the north. All north-south access to the Gumpert Ranch area would be via either Dougherty Road or Camino Tassajara; no new freeway access would be developed between these two existing arterials.

Fundamentally, this alternative is designed to serve a Sphere of Influence extending easterly. Given the finite potential for increasing east-west capacity (particularly if a new east-west access route is not acceptable), a balance will need to be struck between how large an area should be served and how much density is permitted within the area. In other words, the farther east the urbanized area extends, the lower the densities should be in order to avoid transportation system overloads.

d. Travel Demands

To evaluate the ability of the circulation systems to serve potential development in the alternative Spheres of Influence, a computerized procedure was developed for projecting travel demands as a function of population and employment forecasts.

- The area of planning interest was divided into analysis zones, as shown in Figure C-8. (Other parts of the Tri-Valley area and the region were conceptually represented as "external" zones.)
- Within each analysis zone, forecasts of population and employment were made based on developable acreages and assumed densities. (This was also extended to the Pleasanton/Livermore area using year 2005 forecasts from the Tri-Valley and Las Positas studies.)
- Trip-generation rates (from past studies done in the general area) were applied to the population/employment forecasts to estimate the number of vehicle trips generated in each zone.



Not to Scale

Figure C-8
TRAVEL ANALYSIS ZONES
SAN RAMON SPHERE OF INFLUENCE STUDY

Source: DKS Associates

- Trips were distributed between analysis zones as well as to/from external areas based on regional travel patterns reported by the Metropolitan Transportation Commission, and factored to the number of trips projected within each analysis zone in this study.
- Vehicle trips were assigned to a computerized representation of the arterial street system within the Area of Planning Interest.
- Resulting traffic volumes were aggregated to study area screenlines for comparison with roadway capacities.

Table C-9 presents the estimates of daily vehicle trips generated at build-out for the low- and high-density land use scenarios, respectively. Also shown for comparison are forecasts for the assumed land use densities for the recommended Sphere of Influence. They include both existing and future development. The projections assume the following daily vehicle-trip generation rates based on other studies:

Single-family residential	10 trips/unit
Multi-family residential	8 trips/unit
Retail employment	19 trips/employee
Other employment	3.3 trips/employee

For each of the two land use scenarios, trips were distributed among study area and external zones. The resulting zone-to-zone trips were then assigned to each of the two alternative circulation networks along minimum time paths between the zones. Since capacity constraints of the roadway network are not incorporated, the traffic projections represent travel "demands" or "desires" along each arterial link; actual volumes would shift to some extent within each travel corridor depending on available capacity. For this reason, travel demand projections were aggregated to screenlines for analysis purposes.

Table C-10 summarizes these preliminary travel demand projections for each screenline, and compares them to reasonably possible roadway capacities.

e. Evaluation of Circulation Alternatives

Transportation Alternative A: Alternative A is an appropriate circulation concept to serve the most narrowly defined Sphere of Influence alternative.

This alternative orients traffic generated east of Dougherty Road to the north and south, thereby minimizing traffic loadings as well as construction and associated impacts on east-west arterials within San Ramon. Bollinger Canyon Road's primary function would be to serve Bishop Ranch, but it would also off-load Crow Canyon Road to some extent. The key problem with this alternative in terms of traffic service is likely to be Camino Tassajara through Danville, where alternative routes are not available. Even at the lower densities, Camino Tassajara between Sycamore Valley Road and Dougherty Road could ultimately require eight or more through-lanes. Crow Canyon Road would likely receive some of the traffic spillover. This alternative would also put more pressure on Old Ranch Road and in turn on Alcosta Boulevard; hence, a new I-680 interchange in Dublin would be highly desirable to reduce traffic growth on Alcosta Boulevard.

Table C-9

TRIP GENERATION FORECASTS BY ZONE FOR
LOW AND HIGH LAND USE DENSITIES AT BUILD-OUT
San Ramon Sphere of Influence Study

<u>Travel Analysis Zone*</u>	<u>Average Daily Vehicle Trips Generated</u>		
	<u>Low Density</u>	<u>High Density</u>	<u>Capacity-Constrained**</u>
1	49,000	49,000	49,000
2	69,000	93,000	79,000
3	125,000	125,000	100,000
4	48,000	76,000	59,000
5	74,000	76,000	69,000
Subtotal, Sphere A	366,000	419,000	357,000
6	24,000	70,000	35,000
7	44,000	77,000	38,000
Subtotal, Sphere B	434,000	566,000	429,000
8	16,000	36,000	20,000
Subtotal, Sphere C	450,000	603,000	449,000
9	40,000	142,000	3,000
Subtotal, Sphere D	490,000	745,000	452,000
10	14,000	14,000	15,000
11	77,000	77,000	77,000
12	75,000	75,000	75,000
13	40,000	40,000	40,000
14	110,000	110,000	110,000
15	72,000	72,000	72,000
16	33,000	33,000	33,000
TOTAL AREA	912,000	1,167,000	875,000

* Analysis zone boundaries are shown in Figure C-8.

** This projection reflects subsequent scaling of assumed land use densities to maximum future transportation system capacity, as described in Section II.B (Demand for Public Services) of mainbody of report, and is shown here for comparative purposes.

SOURCE: DKS Associates

Table C-10

COMPARISON OF SCREENLINE DEMAND AND CAPACITY
San Ramon Sphere of Influence Study

	Transportation Alternative A				Transportation Alternative B/C/D			
	Max. No. of Lanes ¹	Capacity (000's) ²	Demand (000's) Low ³	High ⁴	Max. No. of Lanes ¹	Capacity (000's) ²	Demand (000's) Low ³	High ⁴
NORTH-SOUTH SCREENLINES:								
<u>East of I-680 Freeway</u>								
Diablo/El Cerro	4/4	60	59	66	4/4	60	45	46
Sycamore	6	45	57	50	6	45	57	50
Crow Canyon	8	60	99	102	8	60	96	92
Bollinger	8	60	51	58	8	60	69	88
(New Road)	-	-	-	-	6	45	4	5
Alcosta	4	30	37	43	4	30	29	31
Total		255	303	319		300	300	312
<u>East of Alcosta Blvd.</u>								
C. Tassajara	6	45	64	91	6	45	47	68
Crow Canyon	6	45	40	74	6	45	29	50
Bollinger	6	45	23	38	6	45	67	108
(New Road)	-	-	-	-	6	45	12	19
Old Ranch	4	30	15	27	4	30	0	0
Total		165	142	230		210	155	235
<u>East of Dougherty Road</u>								
C. Tassajara	6	45	77	130	6	45	57	97
Bollinger	6	45	-	-	6	45	39	60
(New Road)	-	-	19	40	6	45	21	42
Total		90	96	170		135	117	199

NOTES:

- 1 Assumed number of through lanes (two-way).
- 2 Level of Service "D" capacity, in daily vehicles.
- 3 Unconstrained daily traffic demand assuming build-out at low end of density range.
- 4 Unconstrained daily traffic demand assuming build-out at high end of density range.

SOURCE: DKS Associates.

Table C-10 (Continued)

COMPARISON OF SCREENLINE DEMAND AND CAPACITY
San Ramon Sphere of Influence Study

	Transportation Alternative A				Transportation Alternative B/C/D					
	Max. No. of Lanes ¹	Capacity (000's) ²	Demand (000's) Low ³ High ⁴		Max. No. of Lanes ¹	Capacity (000's) ²	Demand (000's) Low ³ High ⁴			
EAST-WEST SCREENLINES:										
North of Crow Canyon										
San Ramon Blvd.	6	45	}	202	157	6	45	}	217	176
I-680 Freeway	8	145				8	145			
C. Tassajara	6	45				64	91			
Total		235		266	248		235		264	244
South of Bollinger										
San Ramon Blvd.	6	45	}	230	227	6	45	}	218	213
I-680 Freeway	8	145				8	145			
Alcosta	4	30				20	22			
Dougherty	4	30	11	38	4	30	10	37		
(New Road)	4	30	22	35	4	30	21	42		
C. Tassajara	6	45	19	47	6	45	21	64		
Total		325		302	369		325		285	371
County Line										
San Ramon	6	45	}	215	218	6	45	}	208	212
I-680 Freeway	8	145				8	145			
Dougherty	4	30				10	29			
(New Road)	4	30	18	35	-	-	-	-		
C. Tassajara	6	45	13	47	6	45	21	64		
Total		295		256	329		265		245	319

NOTES:

- 1 Assumed number of through lanes (two-way).
- 2 Level of Service "D" capacity, in daily vehicles.
- 3 Unconstrained daily traffic demand assuming build-out at low end of density range.
- 4 Unconstrained daily traffic demand assuming build-out at high end of density range.

SOURCE: DKS Associates.

This alternative is hard pressed to satisfy projected ultimate traffic demand at even the lower assumed densities. Particular capacity deficiencies are projected for east-west traffic just east of I-680. Substantial overloads are projected along the entire east-west portion of Camino Tassajara. There seems to be sufficient overall capacity for north-south traffic at the lower densities, but a deficiency at the higher densities. Moreover, there is a potential imbalance of demand and capacity: I-680 freeway and San Ramon Valley Boulevard could be substantially overloaded, while there is more than enough capacity on north-south routes farther east (including the new I-580 access route proposed in this alternative).

Transportation Alternative B/C/D: Spheres B and C would both be logically served by this circulation alternative. The basic issue here is extent of sphere area served versus density of development. Early analysis indicated that a critical screenline for traffic service is just east of I-680. Bishop Ranch and other nearby developments have been projected by others to utilize most of the potential capacity of Bollinger Canyon Road and its planned interchange at I-680. Therefore, to serve traffic generated by high density development to the east, it is probable that additional I-680 freeway access must be provided, as shown for Transportation Alternative B/C/D. This will be a high cost facility, and would displace housing in the vicinity of I-680 (for the interchange). This alternative would, however, minimize traffic growth on Alcosta Boulevard.

On a screenline basis, Alternative B/C/D comes closer than Alternative A is satisfying projected travel demands in the east-west direction. At the lower densities, all such screenlines appear to have sufficient capacity. However, much of the projected travel demand is placed on Bollinger Canyon Road and Crow Canyon Road, while the proposed new freeway access route and Alcosta Boulevard are underloaded; this means that substantial diversion of traffic to the latter routes would have to take place to balance out the volumes. At the higher densities, even the increased screenline capacity is not sufficient; substantial overloading is possible on Bollinger Canyon Road, Crow Canyon Road and, to the east, Camino Tassajara. For north-south traffic, this alternative is similar to Transportation Alternative A: at the lower densities, there appears to be sufficient overall capacity, but overloading could occur along and near I-680 while there is excess capacity farther east. The higher densities would overload the entire screenlines for north-south traffic.

Sphere Alternative D would also logically be served by Transportation Alternative B/C/D. However, even with Bollinger Canyon Road extended to Camino Tassajara, primary access to development in the Tassajara Valley is likely to be via Camino Tassajara to the north (I-680) and south (I-580). Due to terrain and alignment, Bollinger Canyon Road does not have the potential to attract much of the traffic generated in this outer area. Hence in terms of transportation service, this area does not have much orientation toward existing San Ramon trafficways. Moreover, severe overloading of Camino Tassajara could result from development of the Tassajara Valley at the higher density ranges.

4. Comparison: Public Service Issues

Proposed land uses within (at least) Sphere B (which includes Sphere A) would most logically be served by the City of San Ramon, primarily because of the proximity of Sphere B areas to the existing City. The orderly development of San Ramon would logically proceed from the existing City limits, then outward to Sphere A, and finally into Sphere B. Land uses proposed within Sphere B will require urban-level services, and the fiscal analysis indicates that these services could be provided by the City in a financially feasible manner. The fiscal analysis also indicated that Spheres C and D could feasibly be served by San Ramon, but these areas may ultimately have land uses, such as ranchettes, that do not require urban-level services. Some portions of Sphere C could be served by the City of Danville or Contra Costa County.

The existence of special districts was carefully considered in the formulation of the the Sphere boundaries. Sphere A, for example, shares its eastern boundary with the existing City limits and the East Bay Municipal Utility District service area. In most cases, the Sphere alternatives would be served by the set of public service providers discussed in Appendix Section B.5. However, some portions of Sphere C and perhaps all of Sphere D may not require the urban-level services of DSRSD, CCCSD, EBMUD, or SRVFPD. These areas, which would have wells, septic tanks, and other rural services, would probably not require other urban-level services provided by the City of San Ramon.

5. Summary of the Comparisons

On the basis of land use, traffic, and public service comparisons, Sphere B encompasses the areas of urban development that would logically become part of San Ramon's ultimate boundary. Land uses proposed for Sphere B would require the kinds of public services that would be most efficiently provided by the City, while this conclusion cannot be made for Spheres C and D. Importantly, traffic generated by Sphere B land uses would have its primary impact on the existing City, constituting the "traffic shed" of San Ramon. Viewed in terms of proposed land uses, the public services they would require, and the traffic they would generate, Sphere Alternative B is the most logical ultimate City of San Ramon boundary.

D. Index to Data Archive

The information on which the sphere recommendation is based is portrayed on four maps on file at the City of San Ramon offices. The maps are on a USGS base at 1 inch = 1,000 feet made from mylar originals prepared by Contra Costa County that show topographic contours and recent road information. Mylar segments of the base maps measure 2' x 3' or smaller and show areas of 15-25 percent slope, slopes greater than 25 percent, study area boundary, and San Ramon city boundaries. Display maps prepared for use at public meetings consist of taped together sections with applied artwork and are not reproducible. Each map measures approximately 5 feet by 6 feet. Following are the legend items on the four display maps.

1. Planning Factors, 1984

Area of Planning Interest
Area of Detailed Study
City of San Ramon boundary
City of Danville boundary
Major Public Lands (Parks RFTA, East Bay Regional Parks District)
Slopes 15-25 percent
Slopes greater than 25 percent
Proposed Projects (seven pending project proposals in unincorporated territory ranging from 90 to 2,300 acres)
Ranchettes (area subdivided into 5 to 20 acre parcels)
Williamson Contract lands

2. Public Services, 1984 Service Areas/Spheres

Sewer and Water Service Sphere (area within sphere of Contra Costa County Central Sanitary District, East Bay Municipal Utility District, or Dublin San Ramon Services District)
EBMUD Water Service Area (area outside sewer and water service sphere); Dublin San Ramon Services District (DSRSD)
City of San Ramon
City of Danville
San Ramon Valley School District
Amador Valley School District
San Ramon Valley Fire District
Tassajara County Fire District

3. Diagram 1 (Illustrating possible land use, circulation, and sphere alternatives)
 Circulation: A (North-South traffic system)
 Land Use: L-1 (Ranchettes only east of Gumpert Ranch)
 Sphere A

Urban Residential, 2-8 units per gross acre.

Ranchettes, 5-20 acres per unit.

Required lanes on road segments to serve high density and low density land use alternatives; maximum feasible lanes.

4. Diagram 2 (Illustrating possible land use, circulation, and sphere alternatives)
 Circulation: B/C/D (East-west traffic system)
 Land Use: L-2 (Buildout of all land under 25 percent slope not subdivided as ranchettes at urban density averaging 2-5 units per gross acre)

 Spheres: B, C, D

Urban Residential, 2-8 units per gross acre.

Ranchettes, 5-20 acres per unit.

Required lanes on road segments to serve high density and low density land use alternatives; maximum feasible lanes.

E. Work Program - Fire Protection Service Spheres of Influence

The Sphere of Influence analysis for the City of San Ramon could not present a definitive recommendation for fire protection services. The Dublin San Ramon Services District, the San Ramon Valley Fire Protection District and the Tassajara Fire Protection District are all currently responsible for fire protection within the alternative land areas that were considered for the San Ramon Sphere. All three of these districts have responsibilities for Sphere B - the recommended Sphere. Accordingly, the present study verified (by comparing gross estimates of costs and tax base) that fire protection services could be provided within the recommended Sphere. The study concludes with a work program for preparing definitive recommendations regarding fire protection. The following paragraphs describe this work program.

1. Organizational Arrangements

A comprehensive evaluation and rational decision regarding fire protection in the Detailed Study Area requires the participation of Danville, Dublin and San Ramon, as well as the three districts having direct fire service responsibility. Spheres of influence per se are the responsibility of the Local Agency Formation Commission (LAFCo) but actual changes in definition of responsibility (if warranted) depend on the concurrence of some or all of the concerned local governments. Recommendations could have the greatest assurance of being implemented if the governing bodies of the affected agencies all participate in the evaluation.

A thorough evaluation of all the alternatives can most efficiently be accomplished if senior management of the five affected governments all participate in the technical evaluation.

Accordingly, it is recommended that an evaluation of fire service in the Detailed Study Area be carried out under the direction of a Board of Control, with one elected representative from each of the five affected local governments. A task force made up of senior management officials from each local government could actually accomplish the evaluation of alternatives with limited consultant assistance.

2. Task Descriptions

The effort would be accomplished within a total of three tasks. The individual steps and the estimated resources are shown in Table E-1. The following paragraphs describe the purpose of each task and the products.

Task 1: Inventory of Existing Conditions

The existing conditions in each agency providing fire protection services should be documented. This serves both as a summary of personnel and other issues and as a starting point for a consideration of alternatives.

Task Two: Fire Protection Alternatives

As a starting point for consideration of the alternatives that could realistically be implemented, it is useful to prepare a fire protection plan for the Study Area, considering only existing and potential land uses. This "organization-independent" Fire Protection Plan provides a useful starting point for other alternatives that reflect other practical considerations. An operating budget (capital facility

requirements, financing, annual operating expense, and available revenues) should be prepared for this "organization-independent" alternative.

After this somewhat idealized analysis is completed, a description of the actual alternatives can be prepared considering all issues - fire protection, personnel, and governmental. These "real" alternatives can be compared and a recommendation presented to the Steering Committee.

Task Three: Plan for Services - Fire Protection

After appropriate discussion and modification of the alternatives a detailed recommendation and implementation plan can be prepared. The implementation plan should include drafts for all resolutions, ordinances, etc. that would be necessary to implement the recommendation.

Table E-1

STAFFING PLAN FOR FIRE PROTECTION SERVICES STUDY
San Ramon Sphere of Influence Study

<u>Task</u>	<u>Hours</u>	
	<u>Task Force</u>	<u>Consultant</u>
<u>Task 1 - Inventory of Existing Conditions</u>		
Orientation for study team	10	6
Assemble written policies regarding fire protection services and practices	24	
Inventory facilities and equipment	24	
Describe existing paid and volunteer staffs (Experience, training, employment rights, pay and benefits, pension rights)	40	
Consolidate and edit Inventory	8	4
Sub Total	106	10
<u>Task 2 - Fire Protection Alternatives</u>		
Prepare "organization-independent" Fire Protection Plan for study area	24	8
Prepare schedule of capital investment requirements	24	4
Prepare year-by-year operating budget	24	4
Prepare estimate of available revenues		24
Describe organizational alternatives to implement Fire Protection Plan		16
Prepare position classification and staffing plans	24	4
Modify capital and operating budgets, as required	16	4
Prepare revenue estimates		16
Prepare written comparison of alternatives	16	8
Present alternatives to Steering Committee	6	4
Sub Total	134	92
<u>Task 3 - Plan for Services - Fire Protection</u>		
Prepare detailed Operating Plan for recommended Alternative	24	8
Prepare detailed Staffin Plan (including evaluation of any employment, pay or retirement issues)	24	8
Prepare five-year financing plan and operating budget	16	4
Prepare Implementation Plan and enabling resolutions, etc.	24	24
Prepare Draft Project Report	16	4
Presentation to Steering Committee	6	4
Allowance for presentation to individual local governments	18	2
Prepare Final Project Report	8	2
Presentation to Local Agency Formation Commission	6	4
Sub Total	142	70
TOTAL	382	172

Table E-1 (continued)

STAFFING PLAN FOR FIRE PROTECTION SERVICES STUDY
San Ramon Sphere of Influence Study

Project Budget ²	
Management Consultant	\$ 5,900
Fire protection consultant	5,400
Legal counsel	2,000
Expenses	<u>1,700</u>
Total	\$ 15,000

NOTES:

- 1) Hours do not include services of legal counsel. Project budget does include an allowance for legal services
- 2) Does not include cost of time for Task Force members who are government employees.

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